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**ART. I.—*A Course of Mathematics, adapted to the Method of Instruction in the American Colleges.*** By Jeremiah Day, Professor of Mathematics and Natural Philosophy, in Yale College. Parts I, II, III, and IV, including Algebra, Logarithms and Trigonometry, Navigation and Surveying. New-Haven. 8vo. 1814—1817.

**I**N a work, like that which we here announce, designed merely to conduct the student through the elements of mathematical science, and adapted, in its extent, to the circumstances of our public seminaries, original matter is not to be expected. The writer will have met every reasonable demand, if he has succeeded in abridging and arranging the materials furnished by original authors, in such a manner as is best fitted to secure the interest, and accelerate the progress, of the pupil. As the primary object of the mathematical course, in a system of collegiate studies, it not so much to form professed mathematicians as to discipline the intellectual faculties,—to fix the attention,—to sharpen the inventive powers, and to inspire the student with the love of truth, a compilation for this purpose ought to be chiefly of the scientific cast, and to deliver general principles, rather than practical details. While the successive principles of the science are unfolded in their natural order, and each is established on its proper evidence, without anticipating truths which are to be afterwards proved, the illustrations and proofs ought to be carried to such a length, that no *desideratum* shall be left, which ordinary talents and perseverance are inadequate to supply. A style ought to be adopted, which, if destitute, as it must necessarily be, of rhetorical ornament, shall nevertheless interest those who are sensible

to the charms of neatness and precision, and which shall tend to promote a taste for the more chastened and durable beauties of composition. Those general principles and rules which are to be committed to memory, ought to be expressed with the utmost perspicuity and brevity; while a more diffuse and familiar manner, adapted to the capacity of the learner, is best suited to the object of particular illustrations.

A system of mathematics, conducted agreeably to these principles, has always been wanting in the public seminaries of our country. In many of them, independent treatises, by different authors, are still used, for the different departments of mathematical study. As these separate treatises, in general, are written without reference to the peculiar wants of a public seminary, and are equally designed for the general scholar, and the practical mathematician, the use of them cannot but be attended with inconvenience. Besides containing many things, considered individually, which are aside from the object of a collegiate course, they do not, taken collectively, form the system that is wanted. In some cases, they interfere with each other; in others, what is taken for granted by the author of a subsequent branch has not been proved by the author of the preceding; and, in no case, can that system of reference be kept up, from one department to another, which can alone give them the character of a coherent body of science.

Those institutions in this country, which have adopted a single system, have, we believe, generally given the preference to that of President Webber. This compilation, although not destitute of merit, we must think, with many others who have used it, to be but imperfectly adapted to the purposes for which it was made. Not to mention that it contains numerous errors, some of which are of the most palpable nature, its method is too involved, its omissions are too numerous, and clearness of style is too little regarded, to present the elements of science to the student, in the most attractive form. The illustrations contained in the notes are often loose, often obscure, and very often anticipative of principles, with which the reader must be supposed to be unacquainted. Nor is it sufficiently copious for the present advancing state of science in our literary institutions. Besides containing nothing on the elements of the Fluxional Calculus, there are many topics in the other departments, particularly in Algebra and Trigonometry, which, although strictly elementary, and practically important, are passed over in silence.

The system of Dr. Hutton, although it contains a fund of valuable matter, and deserves one of the foremost places on the shelves of the professed mathematician; yet, as an elementary work for schools, is liable to similar objections with that of Webber; for which, indeed, it afforded a large share of the materials. It is likewise too much shaped to the course of instruction in the military school, for which it was originally designed, to be adapted to the wants of public seminaries at large. The joint compilation of Wood and Vince, however well it may be calculated for an English university, is certainly ill fitted for the use of American colleges. The several topics are discussed with a degree of brevity which renders them obscure to the learner; while the variety of matter introduced is much greater than can be consistently attended to, in our public institutions. In Wood's Algebra, for instance, not less than seventy pages are devoted to the general theory of equations,—a subject by no means elementary, and little connected with the subsequent parts of the course.

Among the writings of English mathematicians, we have read none with greater interest than those of Simpson. His arrangement is natural, and his style is easy and pure. His works, however, when taken together, by no means form a complete system. His own investigations, which he often introduces, and which enhance the value of his works to the advanced student, unfit them for the use of the learner. Little more than half of his Algebra, and not half of his Fluxions, could be read, with advantage, by a class of students at college.

We congratulate our readers, and the public seminaries of our country, therefore, on the appearance of the fourth Part of a work which is so well adapted, as that of Professor Day, to the satisfaction of their wants. Our readers scarcely need to be reminded, that the first Part, containing Algebra, the second, treating of Logarithms and Trigonometry, and the third, on Mensuration, have already appeared, at considerably distant intervals. Although it is more than two years since the publication of this work commenced, we shall avail ourselves of the opportunity presented by the appearance of the present number, on Surveying and Navigation, to take a retrospect of the whole work, in this stage of its progress. We do this the rather, because the length of time which has elapsed since the publication of the earlier parts of it, will enable us to speak with more confidence of its merits, from having observed its success in practice.

The work is not a mere compilation. The subjects treated of are necessarily much the same with those which may be found in other writers; but the arrangement, the language, and the examples, are wholly our author's. And if clearness of method, a judicious selection of materials, and perspicuity and neatness of expression, be regarded as furnishing any claims to originality, we think Professor Day is, in no common degree, entitled to the character of an original author.—The general principles, which are printed in a distinct character, and are designed to be committed, possess a degree of brevity, clearness, and precision, which we have seen in no other mathematical work. His illustrations are generally somewhat diffuse; but uniformly luminous, and adapted to the capacity of the learner. He appears to us to possess, in a degree unusual in men of profound science, the power of placing himself in the attitude of a learner, of feeling his difficulties, and of hitting on the most happy expedients for removing them. When an obstacle is to be removed, the most advantageous position is assumed, and the lever uniformly applied at the right spot. As examples of this fortunate mode of illustration, we might refer our readers, among many others, to the distinction given between positive and negative quantities,—to the explanation of the reduction of a problem to the language of Algebra,—to the remarks on the reduction of affected quadratics,—to the illustration of mathematical infinity,—or, in the last Number, to the view given of the principles of Mercator's chart. Here, if the adept in science finds nothing absolutely new, he will at least find known truths placed in a stronger light, and happier attitude.

In regard to his illustrations, our author has taken for his model the familiar, diffuse manner of Euler and Lacroix, rather than the concise, abridged mode of the English writers. The reasons which have induced him to carry his explanations to a greater length than most elementary writers have done, may be found in the Preface to the Algebra. Although they appear, on the whole, sufficient, this method is liable to an objection which our author has not noticed. He has, indeed, furnished us with a highway up the difficult ascents of mathematical science; in travelling which the student of ordinary talents and diligence will find little to impede his progress: But some may question whether an obstacle occasionally left to be removed by his own exertions,—a step in the ascent required to be dug by his own labour,—will not ultimately contribute to accelerate his march. Admitting that 'hours may be spent, in supplying an explanation,

or an article of proof, which, if it had been inserted in its place, might have been read and understood in a few minutes,' we can by no means consider this time as absolutely wasted. The student has been concentrating all his powers on a single point. He has been obliged to summon to his aid all his past acquisitions; from which his sagacity is exercised, in selecting and applying the proper media of proof. The satisfaction of finding one difficulty surmounted by his own exertions, will inspire him with new vigour, and confidence in his ability to overcome others. The illustration which is read and understood in a few minutes, may be almost as soon forgotten: But those conclusions which are the result of hours of active labour, on the part of the student, will never be forgotten. At the same time, the intermediate truths which he was obliged to call to his aid, will be associated in the memory with the final result. The utility, as well as the interest, of scientific studies, depends much on the degree in which the mind is rendered *active*, in pursuing them. We do not hesitate to say, that what is generally termed a *taste* for particular branches of study, is rather the gradual result of the pleasure attending the successful exercise of our faculties in those pursuits, than of any diversity in the original constitution of different minds.

We would not, with our author, object to abridged compilations, therefore, on the ground that the supply of their deficiencies will cost the student additional time and labour; but because few can, in fact, be prevailed upon to submit to this labour. Could the great body of students at college be induced to supply for themselves the chasms in such systems as that of Webber, we conceive that their time could not be better employed; and that, although their first advances might be slow, their final progress would be more rapid than by any other method of study whatever. But, at the age when such a course is usually put into their hands, few possess sufficient perseverance to remove the difficulties which lie at the threshold; and, instead of forming the habit of inventing demonstrations for themselves, and pursuing untrodden paths with pleasure, they contract a disgust for the whole subject.\*

\* What Hederic says, respecting the Analytical Part of his Lexicon, may, *mutatis mutandis*, be applied to the subject under consideration.  
‘ Altera illa, (Pars), cui Analyticæ nomen feci, ea Vocabula grammaticæ, quomodo loqui consuevimus, resoluta complexus sum, quæ difficultatibus suis, sive a Dialecto aliqua, sive aliunde subortis, solicitare tironum patientiam possunt.—Ac temetsi non desint, qui eamdem ignaviæ potius sub-

No one will infer, from the foregoing remarks, that we consider the mind as entirely *passive*, in pursuing such full illustrations as those of Mr. Day, or the complete demonstrations of pure Geometry. Close attention, and considerable exertion, are doubtless requisite, in tracing the investigations even of analytical and synthetical demonstrations, which are so full as to leave nothing to be supplied by the ingenuity of the student. All we contend for is, that invention is a more important exercise, and is attended with more rapid improvement. We are inclined, on the whole, to give the preference to the full method of illustration which Mr. Day has adopted. It will not produce as many original, inventive mathematicians as an abridged mode, which leaves more to be supplied by the student; but it will furnish many more with some share of that intellectual improvement which is the object of the mathematical part of a collegiate course. And the author, with propriety, adopts a more concise method, as he advances in his work.

Paradoxical as it may appear, we are not confident that Mr. Day has not carried his principles of rendering mathematics *easy*, somewhat too far. If the symmetry of the fabric would be impaired, by any essential omissions, either in the demonstrations or in the analytical parts, might not some of those incidental propositions which form no part of the body of the work, be intentionally left with advantage, to be demonstrated by the learner? The miscellaneous problems occasionally inserted might have been made more numerous and difficult. If, in addition to these alterations, the particular applications of general principles, which have been demonstrated, were, in more instances, left to be made by the learner,—if, for example, after demonstrating the general principles of rectangular trigonometry, and exemplifying them in a sufficient number of cases, to render the application familiar, the rest had been merely enumerated and the proportions required of the student,—although more time might be occupied, no loss would probably, on the whole, be sustained.

sodium habeant, quam ut emolumenti quidquam juventuti illam credant adferre, eo quod haec a penitiori Grammatices studio evocet, ad quod potissimum solidior linguæ cognitio reddit: attamen, qui rectius justiusque rem expendunt, satius utique existimant, velificare nonnihil discentium a labore molestiore aversioni, quam quidem commitere, ut miseri succumbant insitiae suæ, vel etiam, quod saepius usu in Scholis evenire videmus, difficultatibus his abterriti linguæ pulcherrimæ studium plane abjiciant.'—*Praef. Græc. Lex.*

Our author's selection of materials is, in general, judicious. Little will be found in the text, which is not strictly elementary, and practically important,—at least from its relation to subsequent parts of the course. At the same time, at least as much matter is comprised under the several heads, as can be attended to in the time usually allotted to mathematical studies, in our public seminaries;—much more, we are persuaded, than has hitherto been usually studied. In addition to this, the notes, at the end of each Number, contain a mass of valuable matter, collateral with, and explanatory of the subjects contained in the text; and they will be read with interest by those whose curiosity leads them beyond the limits, to which the text is confined by its original design.

Throughout the work, an important principle is, with very few exceptions, observed. This is, to demonstrate every truth when it is first asserted, and never to take for granted principles, the proof of which depends on subsequent articles. This circumstance, together with the constant system of reference, which is kept up, to preceding articles, gives this work the aspect of a regular body of science, in a higher degree than any other with which we are acquainted. It is no inconsiderable advantage, too, that the several steps of each process are placed under each other, and numbered. Instead of presenting a congeries of algebraic characters dispersed over the page, which is too much the character of many analytical works, each successive step is distinctly presented to the eye, occupying, with a brief explanation on the left, a line by itself. By the aid of the numbers, any preceding step in the process, whatever be its length, may be readily referred to. The terseness and symmetry with which the matter is arranged on the page, we cannot too much admire; but we regret to see so many contractions as are sometimes made, to bring several related particulars to the same form: and we had rather see some sacrifice in regard to the symmetry which these particulars exhibit, than the deformity and obscurity, which such contractions sometimes occasion.

After this view of the general character of Professor Day's Mathematics, our readers may expect a more particular examination of its contents in succession. The first thing which will probably occur to them as needing explanation, is, that, while it professes to be a Course of Mathematics, adapted to the method of instruction in the American colleges, it contains nothing on the elements of Arithmetic. No reasons are assigned by our author for this omission; and it can be justified only on the ground, that Arithmetic will be required

as a condition of admittance into our public seminaries. An accurate acquaintance with this science undoubtedly ought, if possible, to be made a requisite for such admission; but we do not believe that it will soon be practicable, to such an extent as to supersede the necessity of afterwards revising it. In those grammar schools, where the preparatory *classical* studies are made the primary object of instruction, Arithmetic will be thrown into the back ground, and will now be taught in that thorough, practical manner, without which the student must be utterly unfit to enter upon the higher branches. In the present state of education, it appears to be indispensable, that every class of students in college should revise the principles of Arithmetic, and be familiarized to arithmetical operations, in concert. Indeed, we can hardly conjecture what was our author's motive in excluding Arithmetic from his system, unless it was a supposed difficulty of demonstrating its principles, without violating a rule which he had prescribed to himself, by anticipating the more general symbols and reasonings of Algebra. But why cannot Arithmetic have its peculiar mode of demonstration, as well as Algebra and Geometry? The simple and local values of figures ought to be made subjects of definition; the proper axioms ought to be laid down; and the truth of the several operations with numbers would be as susceptible of demonstration, as that of the common solutions of geometrical problems. As particular diagrams are used in Geometry, to represent all magnitudes of the same class, so, in most cases, particular numbers may be used in Arithmetic, to demonstrate what is equally true of numbers in general. The common method of demonstrating arithmetical rules, we are sensible, has been, to refer them to the more general principles of Algebra: and, to those who are acquainted with Algebra, this is doubtless the best mode of exhibiting the truth of the *series* of simple operations, which constitute a rule in Arithmetic. But this method of demonstration cannot be extended to the simple operations themselves. As is observed by Legrange, one of the greatest analysts of modern times, 'the province of Algebra is not actually to find the values of the required quantities, but to trace the *system of operations* by which they may be deduced from those which are given.\* This 'system of operations' contained in the final formula, if expressed in common language, becomes an arithmetical *rule*. But the application of this rule, to the finding of a particular

\* Théorie des Equations.

numerical solution can never be demonstrated, by the principles of Algebra: And hence the fundamental operations of Arithmetic, if susceptible of demonstration at all, must be established on principles peculiar to the nature of numbers, and derived from the established scheme of notation. We cannot avoid thinking, that the logic of Mr. Day's whole system is somewhat impaired by the want of such demonstrations as could have found a place only in an introductory treatise of Arithmetic. The correctness of the common arithmetical operations with integers, fractions, and surds, he often takes for granted; but he has neither demonstrated those operations himself,—nor referred the student, for such a demonstration, to any other author.

For the two reasons implied in the foregoing remarks, we think, that the utility of the work would have been enhanced, if it had been introduced by a brief exhibition of the doctrines of number. Most of those details which fit a system of Arithmetic for the use of the artificer, or the merchant, might have been omitted; while the fundamental operations, both with numbers of the same and of different denominations, the theory of fractions, of ratio and proportion, of powers and roots, and of progressions and combinations, should have been presented to the learner, at least in the text, in the form of pure science.

The general Introduction, which contains a concise statement of the objects of mathematical science, of its great divisions, and of its practical applications, is sketched with the hand of a master, and will be read with interest, even by the advanced student. We are not confident, however, that the definition of *quantity*, which is intended to include all the objects of mathematical investigation, will be regarded as sufficiently precise. ‘Any thing which can be increased or diminished, or which is capable of being measured,’ says our author, ‘is called quantity.’ The former part of this definition appears to include too much; and the latter too little. Many things are capable, in the strictest sense of the modifications, of increase and diminution; such, for example, as pleasure and pain; which yet no one ever thought of ranking among the objects of mathematical inquiry. Although it is remarked, with truth, in illustrating the foregoing definition, that ‘one colour cannot, with any propriety, be said to be greater or less than another;’ yet it is because different colours are heterogeneous. The *same* colour, however, admits of different degrees of intensity, and is, therefore, susceptible of increase and diminution. It is not easy, we confess,

to draw the precise line where the objects of mathematical investigation cease. One body may be said, with propriety, to be more luminous than another; but shall *luminousness* be therefore considered as a quantity? Heat, considered, not as a substance, but as an agent, is capable of different degrees, and can even be measured with considerable exactness; but it may still be doubtful whether it ought to be ranked among mathematical quantities.—On the other hand, the latter part of the definition seems to exclude *number* from the list of quantities; which, far from being ‘capable of being measured,’ appears to us to be, in the language of Mr. Locke, itself that which ‘measures *all* measurables.’ What do we mean, when we speak of any object as capable of being measured, but that it contains some other of the same kind a certain *number* of times, either exactly, or with a definite excess? To apply this definition to number itself would be absurd.

We find a difficulty, we own, in uniting number in a common definition with the other objects of scientific investigation. It is an abstract notion derived from those other objects, and alike common to them all. The *latter* would be most correctly defined, by considering them as susceptible, not only of the relations of greater and less, but of multiple and part.\* The relations of greater and less are predicable of pain, colour, beauty, &c.; but we cannot conceive the possibility of applying to either a measure which shall determine it in one instance to be double or triple of what it is in another.† To constitute our idea of mathematical quantity, however, it is not necessary that the object itself should be

\* Since writing the above, we have unexpectedly found an almost verbal coincidence with these views, in a paper of Dr. Reid, which is published in the Philosophical Transactions for 1748. ‘The object of this science,’ he observes, ‘is commonly said to be *quantity*; in which case, *quantity* ought to be defined, *what may be measured*. Those who have defined *quantity* to be whatever is capable of more or less, have given too wide a notion of it, which has led some persons to apply mathematical reasoning to subjects that do not admit of it.’ To this quotation Mr. Stewart subjoins: ‘The appropriate objects of this science are therefore such things alone as admit not only of being *increased and diminished*, but of being *multiplied and divided*.’ In exact accordance with the views expressed above, he remarks of number, in the same note, that ‘it might be easily shown that it does not fall under the definition of *quantity*, in *any* sense of that word.’ Philosophy of the Human Mind, vol. ii, p. 489, 491. Edin. Ed. 418–20. Phil. Ed.

† We mean, in regard to the degree in which these modes exist at any assigned moment; for, in one respect, pleasure and pain, at least, have a singular analogy to some species of mathematical quantity. If a certain pain be supposed to continue uniform, it is as evident that the aggregate suffered varies as the time of its continuance, as that time is the measure of the distance described by uniform motion.

directly conceived capable of exact multiplication. We sometimes conceive of it through the medium of its attendants or effects; and it is then only necessary that the *measure* by which we represent it, should possess this property. Thus heat is measured by the expansion of mercury; accelerating force, by velocity and time jointly; velocity itself, by space and time; specific gravity, by weight and bulk. It may be thought that this view of the subject will indefinitely multiply the objects of mathematical investigation; since there is scarcely an object in nature which may not have some quantity assumed for its measure. Some of the best ethical writers, such as Wollaston, Hutcheson, &c. have carried it so far as even to apply numerical reasonings to the affections and operations of the mind. We have already acknowledged the difficulty of assigning the exact number of quantities, in the mathematical sense; but it is easy to limit them to a moderate number, and, at least, to exclude the objects of morals and metaphysics. Whatever comes under the denomination of quantity ought not only to be conceived capable, in *theory*, of exact measurement; but of being *actually* measured, with such a degree of accuracy, that the conclusions mathematically deduced from the assumed measure may be practically correct. It may, indeed, serve to fix our ideas, to consider, for example, the force of *temptation*, or the intensity of *pain*, as proportional to numbers; and the conclusions derived from such suppositions by the common arithmetical operations, will be hypothetically correct. But the hypotheses from which these conclusions are derived, are applicable in so vague a manner, at best, to the affections of mind, that they have little practical utility; and no one has ever thought of ranking these affections among mathematical quantities.—On the other hand, those collective objects in which the *number* of individuals is the only circumstance regarded, (abstracting from the magnitude and other peculiarities of each,) are susceptible of a perfect measurement. Numerical computations, concerning such collectives as an army, or a sum of money, may be mathematically exact, even in practice. In all other cases, as the nature of the quantity requires each unit to be in some respect *equal* to every other,—although we conceive it in its own nature capable of exact measurements,—yet practice does not, as in the former case, perfectly coincide with theory. It is beyond human power, for example, to draw a line, which shall be exactly ten miles in length; or to describe a triangle, which shall exactly coincide with the triangles of Geometry. But lines may be measured in a

manner so *nearly* exact, and figures may be found among material objects, or may be described, approaching so *near* to those of Geometry, that, in the former case, the numerical computations derived from the supposition that the measurement is perfect, and, in the latter, the application of the properties previously established concerning the figures of pure Geometry, is attended with no sensible error. So the expansion of mercury is not exactly proportioned to the increase of heat; and is, indeed, much farther from being an accurate measure, than those which have been just mentioned; yet it is so nearly the case, that the conclusions derived from the supposition of its being a perfect standard, are by no means destitute of practical utility. But should the measure assumed for any object, be applicable to it in so loose a manner, that a system of mathematical conclusions derived from it would have little practical use, such an object ought to be excluded from the number of mathematical quantities. Such, for example, in the present state of science, are magnetism, friction, and the resistance of fluids. But it is natural to conclude, that the number of *quantities* will increase with the advancing state of human knowledge. There is nothing incredible in the supposition, that accurate measures may be hereafter found for those qualities and operations of things around us, which are now regarded as incapable of measurement. It was not till the discoveries of Newton, let it be remembered, that gravitation could be regarded as a mathematical quantity.

We question the correctness of that part of our author's classification, which assigns to Fluxions a place among the higher branches of Algebra. Fluxionary processes, it is true, require the aid of Algebra; as those of Algebra often require the aid of Arithmetic and Geometry. The first principles of Fluxions appear, nevertheless, to be as distinct from those of Algebra, as the first principles of Algebra are from those of Arithmetic. The latter, indeed, can scarcely be said to differ at all, except in regard to their universality. Fluxions might, we think, be with equal propriety ranked under the head of Geometry; and this classification would doubtless be preferred, by that large class of scientific writers who have treated of Algebra under the title of universal *Arithmetic*, and of Fluxions, under that of the *Geometry* of infinites. Although the algebraic notation may be conveniently employed in the fluxional calculus,—as it is by the best modern writers in some parts of pure Geometry; yet the principles of this calculus may be exhibited in a manner much

more analogous to Geometry than to Algebra. This method Maclaurin has actually adopted; and it appears to be the mode of investigation most appropriate to the nature of the subject. The first principles of Fluxions belong primarily to geometrical magnitude, which is considered as produced by motion; and only secondarily to abstract number, which may be considered as varying proportionally to variable magnitudes. Then at least are the views taken of the subject by the English writers, in accordance with those of the great inventor; and if some later writers on the Continent\* have found means of arriving at the same results, without reference to motion, or even to infinitesimals, it can have no effect on the place which Fluxions, properly so termed, ought to hold, among the subjects of mathematical inquiry.

We cannot deny ourselves the pleasure of quoting our author's reply to an objection against the utility of scientific studies, which may have had weight in the minds of many of our readers. After enumerating the various practical applications of science to the arts of common life, he observes:

'It is true that in many of the branches which have been mentioned, the ordinary business is frequently transacted, and the mechanical operations performed, by persons who have not been regularly instructed in a course of mathematics. Machines are framed, lands are surveyed, and ships are steered, by men who have never thoroughly investigated the principles, which lie at the foundation of their respective arts. The reason of this is, that the methods of proceeding, in their several occupations, have been pointed out to them, by the genius and labour of others. The mechanic often works by rules, which men of science have provided for his use, and of which he knows nothing more than the practical application. The mariner calculates his longitude by tables, for which he is indebted to mathematicians and astronomers of no ordinary attainments. In this manner, even the abstruse parts of the mathematics are made to contribute their aid, to the common arts of life.' p. 7.

On the definition of Algebra, at the head of the first Section, which makes it 'a general method of investigating the relations of quantities, principally by letters,' we have nothing to remark, after the apology which the author makes for its necessary imperfection, except that it seems to make the use of *letters* essential to Algebra. It is only in the character of *symbols* that letters are of any consequence in Algebra: any other symbols whatever, if generally agreed on, would equally answer the purpose. In this particular, there seems to be no occasion for any deviation from the language of the definition usually given.

\* Landen, Legrange, &c.

The critical student, who peruses this Section, will not find it stated, with sufficient explicitness, *what it is*, for which the symbols of Algebra immediately stand. Sometimes they appear to be spoken of as the representatives of quantities, and, at other times, as those of numbers. The determination of this point will be found to be of considerable importance, in examining the general relations of the different departments of mathematics. To us it appears manifest, that the symbols of Algebra are exclusively the representatives of numbers. Most of those algebraic characters which denote *operations* to be performed, denote those operations which are exclusively appropriate to number. Even when, in the application of Algebra to Geometry, letters are put for lines and spaces, they are never to be regarded as immediate representatives of those magnitudes; but of numbers proportional to them. The operations of involution, evolution, &c.—operations which belong exclusively to number—are resorted to in the reduction of equations, in this, no less than in the other departments of Algebra. This principle, if established, settles the limits within which the algebraic notation may be employed in demonstrating geometrical problems; and shows, that the characters denoting operations on quantities, when adopted in geometrical demonstrations, acquire a meaning in some respects different from that which they possess in pure Algebra. The meaning of the sign of multiplication, for example, as used in the late editions of Euclid's second Book, is totally different from the algebraic signification of the same character.—To speak of algebraic characters, as denoting quantities, is common among mathematical writers; and, if properly understood, can lead to no mistake. But it ought always to be considered as an abbreviated way of saying, that they denote quantities through the medium of numbers.

Besides a general view of the algebraic notation, this Section contains a luminous exhibition of the uses of the negative sign. We cannot conceive the familiar illustrations given by our author of a subject so difficult to the beginner, to merit the censure of Simpson, that they 'derogate from the dignity of science.' It will be conceded by all, that, when a negative solution is obtained for a problem, if it has any meaning, it can be only in the application of it to objects having a real existence. Why, then, may not those existing objects be pointed out to the student, from which the symbols in question derive all their signification? To expect him to form a correct notion of an abstract symbol, and yet to

keep from his view those particular cases by which it is exemplified, will appear preposterous to those who admit, that the natural progress of the human mind is from particulars to generals.\*

There is one circumstance connected with this subject, which needs explanation; but which we have looked for in vain, either from Mr. Day, or from any other work which has fallen into our hands. Writers generally content themselves with stating, that the sign *plus* is prefixed to positive quantities, or those which are to be added,—and the sign *minus* to negatives, or those which are to be subtracted. But the student who advances at all beyond the bounds of the simplest elements, will find nothing more common than expressions containing a series of quantities connected by the *positive* sign, and made equal to 0. This, indeed, is the form into which equations of all orders are usually thrown, in treating of the general theory of their reduction. To one who has derived all his knowledge of the use of signs from the common books of elements, we venture to say, that such an expression as this will be utterly unintelligible. If he is told, that though all the quantities are to be added, yet some of them are *negative*, the addition of which will be equivalent to an arithmetical subtraction, he will probably think it a sufficient reply, that no character denotes their being negative, and that the sign *minus* ought never to be omitted. The explanation which appears necessary is briefly the following. The sign *plus* is, in such cases, used for the *ambiguous* sign. In the solution of the equations,  $x^3 + bx - c = 0$ , and  $x^3 - bx + c = 0$ , there can plainly be no other difference in the values of  $x$  than this; that the terms which contain any odd power of  $b$ , or  $c$ , alone, as a factor, will have a contrary sign in the first from the corresponding terms in the second. This being the case, a single formula may express both solutions, by prefixing to such terms the ambiguous sign. But if the sign *plus* be written throughout before such terms as have the ambiguous sign, and the sign *minus* before such as have

\* We cannot avoid remarking here, the very different aspect which science presents, as treated by the best English writers, and by those on the Continent. The former, by pursuing a method rigidly synthetical, compel us, indeed, to admit the truth of their conclusions; but leave us to wonder how they came by them. The latter often take us as their companions in groping their way through the dusky regions of analysis. They show us the manner in which they use their tools; and are not ashamed even to acquaint us with their blunders and unsuccessful experiments. The former method is best calculated to inspire the learner with a profound reverence for the talents of the author; the latter, to give him confidence in his own talents.

the ambiguous sign inverted, it will be as easy (and indeed more convenient, in practice, as might be easily shown) to change the signs of all those terms which contain an odd power of a co-efficient, which, in a particular case, is negative, as to select from the two which compose the ambiguous sign, the one required by the supposed negative co-efficient. On this account, the *minus* of the ambiguous sign, particularly in the higher departments of analysis, is frequently omitted in the general investigation; and left to be substituted, whenever the peculiarities of an individual case, included in the general formula, may require it.

Passing over the four succeeding Sections, which contain, in nearly the usual form, the four simple rules for integral and fractional expressions, we come to the subject of simple equations. It is brought forward into an earlier part of the system, than has been done by most English writers; and, we think, with the utmost propriety; as it affords the student a respite from that long and tedious series of operations, with abstract symbols, which exclusively occupy the greater part of most elementary works; and furnishes him with examples of the real meaning and use of these symbols, at that period of his progress when he most needs them.—An equation is defined by our author to be ‘a proposition expressing in algebraic characters, the equality between one quantity, or set of quantities, and another.’ Mr. Stewart objects to this kind of definition; and proposes the following: ‘A proposition asserting the equivalence of two expressions of the same quantity.’ It is not our design to enter at large into the merits of these definitions; and we will only just remark, that the observations already made on the true import of algebraic symbols lead us to give the preference, in point of precision, to the latter. The former, however, (omitting the phrase ‘in algebraic characters’) is the true definition of all mathematical equations except those of Arithmetic and of Algebra. The reason of this distinction, is, that two equal numbers are necessarily identical; or, in other words, are only different expressions for the *same* number; while two magnitudes may be equal, and yet in regard to place, and various other accidents, be far from being the same magnitude.

In the ninth Section, while treating of evolution and surds, our author just adverts to the subject of impossible quantities. Perhaps more could not have been said on this interesting topic, in a work which professes to be strictly elementary. We are anxious, however, to see it logically and sys-

tematically examined. The principles generally assumed, in the management of impossible quantities, ought to be reduced to a system; and, if possible, established on demonstrative evidence. If this cannot be done, the nature of the evidence, which such investigations carry with them, ought, both in kind and in degree, to be precisely estimated. Till so much is effected, the use of imaginary expressions should be discarded from all science, which lays claim to demonstrative certainty. But we may apply to the most distinguished analysts, in reference to this subject, a remark somewhere made by Maclaurin, in reference to the analysis of infinites,—that mathematicians have been more anxious to push their discoveries, than to examine minutely the grounds on which they were proceeding. Several attempts have, indeed, been made to divest the logic of impossible quantities of the obscurity in which it is involved; particularly in the Philosophical Transactions of London, by Professor Playfair, Mr. Woodhouse, and M. Buee. The attempts of the latter, if we may confide in the statement given of them by Professor Playfair, in the Edinburgh Review, are nearly abortive; and we can scarcely regard the views of the Professor himself as entitled to any better character. His paper, which is referred to by Mr. Day, for farther information on this subject, contains many ingenious observations on the analogy of circular arcs to hyperbolic areas; but, considered as a statement of the *evidence* attending investigations with impossible quantities, it appears meagre and unsatisfactory. He is, in the first place, mistaken in supposing, that imaginary expressions are never used, except in investigations which concern circular arcs. The writings of Euler show that they have important applications to the indeterminate analysis. But to refer all the evidence attending the investigating of the properties of the circle, by means of imaginary symbols, to the analogy between these symbols and certain others free from imaginary expressions, which belong to the hyperbola,—appears to us to be annihilating it.

We will close these remarks with presenting, to our younger readers, a demonstration of a certain principle in reference to imaginary quantities, which they will often find taken for granted,\* but which, so far as we know, has never yet been demonstrated. This is, that when real and impossible quantities occur in the same equation, those quantities which are real, and those which are impossible, on opposite sides of

\* Euler's Alg. vol. ii. chap. 12. Vince's Flux. p. 203, &c.

the equation, are respectively equal. All expressions involving imaginary terms, it has been demonstrated by D'Alembert, may be reduced to the following form:  $A + B\sqrt{-1}$ . We have then only to show, that, in the equation  $A + B\sqrt{-1} = a + b\sqrt{-1}$ ,  $A = a$ , and consequently  $B\sqrt{-1} = b\sqrt{-1}$ , or  $B = b$ . Let the quantities  $a$  and  $B\sqrt{-1}$  be transposed; and, by writing  $b - B = d$ , we shall have  $A - a = d\sqrt{-1}$ . The second member of this equation is an impossible quantity; and, as the first is real, the equation is absurd in every case, except that in which  $A - a = 0$ , or  $A = a$ ; and consequently  $B\sqrt{-1} = b\sqrt{-1}$ , or  $B = b$ . This is the principle, by means of which we obtain a very large part of the conclusions, derived from the introduction of imaginary expressions.

In delivering the doctrines of proportion, in Section twelfth, we have the same definition of ratio, as is given by Professor Adrain and others; who make it to consist in the *quotient* of the antecedent, divided by the consequent. This definition is perfectly adapted to the nature of Algebra, and leads to a much more concise and extended deduction of the properties of ratio and proportion, than that of Euclid. It would be unreasonable to infer from this, however, that the method of Euclid ought to be laid aside. The definition given above, as it necessarily involves fractions and surds, is applicable to magnitude only as denoted by number. The method of Euclid, on the contrary, avoids entirely the consideration of quotients; and considers magnitude as it exists independently of number; the only view of the subject, which, in our opinion, can consistently find a place in the elements of pure Geometry. The doctrine of ratio, as laid down and pursued by our author, supposes the practicability of multiplying one magnitude by another;—a supposition, which, when magnitude is considered independently of number, as in Geometry, is nothing less than a solecism. We have been led into these remarks, in consequence of the disposition, too common among late writers, to decry the ancient mode of treating proportion, and to tarnish the character of pure Geometry, by blending it with the doctrines of number.

The succeeding Section, on Variation, will be found to supply an important chasm, which the student, who has used the common elementary books, must have found, in the transition from pure to mixed mathematics. The fundamental laws of general proportion are necessarily so often taken for granted, in Mechanical Philosophy, as well as in the higher

branches of pure mathematics, that it is a matter of surprise, that a place has not been more generally assigned to them, in the treatises of elementary writers.

The Section on Mathematical Infinity deserves the attentive perusal of all, who are inclined to doubt the conclusiveness of those investigations which involve infinites and infinitesimals. Such persons, if we are not mistaken, will find several distinctions laid down, and several principles of operation with infinites explained, which, if earlier attended to, would have saved them much perplexity. It has been a favourite object with many who are no friends to mathematical science, to bring into discredit its pretensions to superior clearness of evidence, by appealing to the supposed absurdities deducible from the doctrine of infinites. It must be admitted, that some writers have been either so negligent in the choice of language—so fond of the marvellous and profound, or so imperfectly acquainted with their subject, as to present the consequences of this doctrine in a very paradoxical, if not in a very questionable point of view. We have certainly no more partiality than Mr. Hume, for the language of those who speak of orders of lines as actually existing, each of which is infinitely smaller than the preceding. In our view, as little is added to the extent, as to the logic of mathematical science, by such representations. But, that two magnitudes may be supposed to increase beyond any assignable limits, while one of them is continually greater, in any finite ratio, than the other, is one of the most natural and familiar ideas possible. Likewise, that those magnitudes which are in some respects infinite, and in others finite, may differ in any assignable ratio, in those respects in which *each is finite*, involves no difficulty. Thus two parallelopipeds may be conceived to be extended indefinitely in length. Now, if one were disposed to maintain, that, in point of length, both, being infinite, must necessarily be equal, yet in regard to their solidity, which universally varies as the length, breadth, and thickness, two of which are supposed finite, they may differ in any assignable ratio, we see no good reason why he should be hindred from so thinking; and, indeed, to maintain that their length was the same, would be virtually conceding that their solidity was as their breadth and thickness. Here then, at least, we have two magnitudes, each greater than any assignable one of the same kind, which an objector must, according to his own principles, admit to be capable of differing in any finite ratio. Had the different modes in which objects may be supposed to become

infinite, and the fact that they may be infinite in some respects, and finite in others, been kept clearly in view, many useless disputes would have been saved to the world, on metaphysical, as well as on mathematical, subjects.

The position of the sixteenth, seventeenth and eighteenth Sections will probably be regarded as a deviation from that judicious arrangement, which is generally so conspicuous throughout this work. Neither of them has any connexion with the subjects of the six preceding Sections; although each is intimately connected with those which precede the latter. We cannot feel entirely reconciled, we confess, to seeing one branch of algebraic division thrown off nearly two hundred pages from the rest. Division by compound divisions must undoubtedly be deferred, till the nature of powers is explained; but we see nothing to forbid inserting it in immediate connexion with the division of powers in Section eighth. Having explained the division of simple quantities affected with exponents, and, in an earlier part of the work, that of simple quantities not thus affected, this seems to be the proper place for combining them both, and of applying the simple rules just laid down, to compound divisions, as our author has actually done, to compound multipliers.—This Section, wherever placed, should have contained the method of finding the greatest common measure of algebraic quantities; and hence of reducing fractions to their lowest terms;—an operation which is contained in no part of the work. We presume that it was an oversight in the author, which he will remedy, in a future edition.

We are also of opinion, that the Binomial Theorem, and the evolution of compound quantities, would have been better placed in connexion with the involution and evolution of simple quantities, in the eighth and ninth Sections. In treating of the latter, all the *elements* are introduced, by the combination of which the rules for the former are framed. This arrangement would have been attended with another advantage,—that of avoiding an anticipation of part of the subject of the seventeenth Section, in explaining the reduction of affected quadratics. We can think of no objection to this arrangement, unless it be in regard to the Binomial Theorem; the investigation of which is somewhat more general and difficult of apprehension, than the other subjects which come into so early a part of the course. But the lucid manner in which its successive steps are unfolded by Mr. Day, and especially the circumstance that he has attempted no de-

memonstration of it, will remove this objection, at least in regard to those who have mastered the subject of surds.

We were going to propose some alterations in the Section on Infinite Series; but, where so much more matter must be excluded, than can possibly be admitted, in a work of so limited an extent, we are sensible that two individuals can scarcely be expected to agree perfectly, in the selection of what appears to possess the greatest practical importance. We shall not, therefore, trouble our readers, nor the author, with any proposed improvements,—any farther than to suggest, that, as the method of indeterminate coefficients must come up to view sooner or later in the course, this seems to be the proper place for illustrating the general principle on which that method depends.

The twentieth Section, which is the last on subjects purely algebraical, briefly treats of the composition and resolution of the higher orders of equations. The author has judiciously omitted noticing most of the topics connected with this subject. No branch of analysis has been pushed into longer and more laborious details than this of the general structure of equations; and none, in our view, has less practical importance. Even the rule of Cardan would probably be laid aside, for the common methods of approximation, by every practical mathematician, who had an equation of the third order to solve, and whose only objects were accuracy and expedition. Those who aim at a thorough knowledge of analysis will, of course, read the works of such writers as Lagrange, Euler, Bezout, and Waring, on the general theory of equations; but these topics are of too speculative a nature to find a place in an elementary treatise.

Next follows an explanation, somewhat in detail, of the application of algebraic symbols, to geometrical reasoning, and geometrical problems. The subject of this Section is one of so great practical importance that we could not wish it to have been shorter. The substitution of the short hand of Algebra, for the prolix method of the ancients, in analyzing the objects of Geometry, is one of those rare improvements of modern times, for which the memory of Des Cartes will long be cherished by the friends of science. But the logical correctness of this application, it has been reserved for later writers to evince; and we have never seen it done in so masterly a manner as by Professor Day. The illustrations of this subject are followed by a few of the simplest applications of analysis to the solution of geometrical problems. To these might have been added, with advantage, a list of

theorems and problems to be demonstrated and solved by the student. We know of no exercise, in the whole circle of mathematical science, more advantageous than the solution of problems, which require the united aid of Algebra and Geometry. Besides giving scope to the powers of invention, and requiring the continual application and revisal of principles already acquired, they lead the mind to contemplate the relations existing between the different branches of science, as well as to the formation of those enlarged views, which distinguish the profound mathematician from the mere sciolist.—The concluding Section, containing a brief view of the equations of curves and of geometrical loci, derives its importance, in a work of this kind, from its intimate connexion with the quadrature and rectification of curves, and the cubature of solids, in the last department of the Course.—Leaving the first Number (for our limits oblige us to exclude many observations which we had intended to make) we proceed to the second; which treats of Logarithms and Plane Trigonometry.

An intimate acquaintance with the nature and uses of Logarithms is so essential a preparative for most of the subsequent branches of mathematics,—particularly for Plane and Spherical Trigonometry, Surveying, Navigation, and Astronomy,—that no reasonable objection can be made to an account of them, which might otherwise appear too minute for an elementary work. There are several subjects usually included in books of Algebra—such as Compound Interest (to which Annuities might have been added with advantage) and Exponential Equations,—which our author has very properly deferred, till the use of logarithms has been explained. It would be desirable, as many will probably pursue his course to this Number, who will stop short of Fluxions, and as there are many modes of computing logarithms, which are independent of this calculus, that one of the simplest had been selected, and made the subject of a note. Probably more will have a curiosity to learn the manner of computing logarithms, than that of the trigonometrical canon; which our author has admitted into his text, and which equally belongs, naturally, to the higher Geometry.

Mr. Day rejects a common definition of Logarithms, which makes them ‘a series of numbers in arithmetical progression, corresponding to another series in geometrical progression,’ on the ground, that it is not the logarithms, but the natural numbers, which are in arithmetical progression. If it were added to this definition, by way of explanation, that the ratio

of the geometrical series is considered as extremely near to unity, and that by far the greater part of each series, towards the beginning, is omitted, as not being wanted in practice, the obscurity, which our author anticipates, would be, in a great measure, removed. On the other hand, it appears to us, that the definition which he has given—‘the exponents of a series of powers and roots’—will be regarded by the learner as obscure, unless accompanied by considerable explanation. The student, who has come directly from Algebra, will perceive very little resemblance between the long decimal fractions, which he finds in logarithmic tables, and what he has been before taught to consider as exponents. To ourselves, we recollect, this appeared much the greater paradox of the two. Mr. Day's explanations, indeed, render the subject sufficiently clear; but his definition, considered by itself, is liable to the additional objections of not indicating whether logarithms are the exponents of powers and roots of the same, or of different numbers,—and of not noticing the fact, that, in truth, by far the greater part of logarithms denote neither powers nor roots, but the powers of roots. Were we to hazard a definition, we would say, that ‘the logarithm of any number is the exponent denoting such a root of a power of a given number (termed the radix of the system) as is equal to that number;’ a definition, which, if it has not the merit of conciseness, at least distinguishes logarithms from every thing else.

If any of the Sections in the Trigonometry would admit of being condensed, it is that on right angled triangles, (as has been already hinted,) and those on the use of the plane and Gunter's scales. Little use, we believe, is made of these scales, in working proportions; and, even in Surveying, they are now in a great measure laid aside, for the more accurate method of arithmetical computation. Had half a dozen pages been taken from these Sections and devoted to Trigonometrical Analysis, it would have given room for the introduction of those general formulas for the sines, cosines, and tangents of multiple arcs, which seem too important to be passed unnoticed, even in an elementary work.

We observe, that, under the second theorem of Oblique-angled Trigonometry, our author has adopted, with a little variation, the elegant demonstration of Simpson, instead of the clumsy one of Webber. The formal demonstration of the third theorem might have been superceded by a simple reference to Euclid, l. 6.; which contains the same proportion in the form of an equation.

Our remarks on the two remaining Numbers must be extremely brief. The Mensuration contains little which is not generally found in elementary works, except the Section on Isoperimetry; which appears to be chiefly taken from Legendre, and is reduced to a neat and scientific form. Those plane and solid figures, the mensuration of which depends on the principles of the common Geometry, are treated of in the text; while those which depend on the principles of the fluxional calculus, have rules given for them, without demonstrations, in an appendix. We think the introduction of these rules, in any shape, is a violation of the method which the author prescribed to himself, at the commencement of his work; but it is a violation which the exigency of the case seems to render indispensable. Although ostensibly introduced for the use of those who may be pursuing a more limited course of private study, we believe that, even by those for whom the work is primarily designed, the subjects of this appendix will be taken up with more advantage here, than in that part of the Course, to which the demonstrations more properly belong. The mind is never less fitted for remembering and applying practical rules, than when it is primarily engaged in long and difficult analytical investigations. For the practical mathematician, such a summary is absolutely necessary. Could we even suppose him, in ordinary cases, so well versed in the principles of Fluxions, as to be able to comprehend the reasons of these rules, he would still want a synopsis of them for purposes of reference. To have the various rules for the areas of the conic sections,—for the superficies and solids generated by their revolution,—for guaging casks, &c. dispersed through a volume of Fluxions, just where the investigation of these surfaces and solids might happen to fall, would, in practice, render them entirely useless.

The Number just published, containing Navigation and Surveying, to which is prefixed the Mensuration of heights and distances,—although ‘it does not contain all the details which would be requisite for a practical navigator or surveyor,’ is sufficiently copious for the use of those whose object is rather to learn ‘principles, than the minute rules which are called for in professional practice.’ The elementary principles of Navigation are delivered with a clearness and method, which will not disappoint the expectations of those who have seen our author’s former publications. What most deserves our notice at present, is the view given of the principles of plane sailing and the plane chart,—a subject on

which the works of former writers on Navigation are full of confusion and inconsistency. To give an instance of this confusion:—Nicholson, of whose treatise Webber has given an abstract, in describing the construction of the plane chart, directs, that the meridians should be laid down at the same distance from each other with the parallels of latitude. Under plane sailing, he defines departure to be the distance, *on the plane chart*, between two meridians. If so, departure and difference of longitude are identical. But when he comes to middle latitude sailing, he represents departure as equal to the meridional distance, reckoned, not on the equator, but on a parallel of latitude, *between* that which is left, and the one arrived at. Most of the writers whom we have consulted, agree in defining plane sailing to be ‘the art of navigating a ship upon principles derived from the supposition of the earth’s being an extended plane.’ Hence they correctly infer, that, in consequence of the sphericity of the earth, the calculations derived from the principles of plane sailing must be inaccurate. But as Mr. Day has very justly remarked, ‘if there were any incorrectness in plane sailing, it would extend to Mercator’s sailing also,’—since the difference of longitude is determined by the *departure*, calculated by plane sailing;—whereas the calculations in Mercator’s sailing, for a single course, are universally admitted to be correct. All this disorder has been remedied by Mr. Day, by denying that plane sailing is founded on the principles of the plane chart, and assigning a new definition of departure. He considers it as the sum of the indefinitely small deviations from successive meridians, estimated each on the parallel of latitude where the deviation takes place. Bowditch has indeed given, in substance, these views of departure under middle latitude sailing; but, in defining the terms of plane sailing, he has expressed himself in a manner liable to the same objections with that of his predecessors. ‘Departure,’ according to him, ‘is the east or west distance a ship has made from the meridian of the place she departed from, and in the plane chart is the same with the difference of longitude.’ According to the obvious sense of this definition, departure cannot be accurately found by the principles of plane trigonometry; but, according to that of Mr. Day, the principles of plane sailing are mathematically accurate. This accounts for the correctness of Mercator’s sailing; for it will be seen, by consulting the common demonstrations of Mercator’s first theorem, that it is of departure, *in Mr. Day’s sense of the term*, that this theorem is proved.

Mr. Day proposes a method of constructing the plane chart, different from the one generally laid down by writers on this subject. Instead of making the meridional distances equal to those of the parallels at all latitudes, he would diminish them in the ratio of the cosine of the middle latitude of the chart to radius. Nicholson, Bowditch, et ceteri, in laying down the plane chart, consider the earth as an Archimedes cylinder; Mr. Day considers it as composed of an indefinite number of narrow cylinders, having a common axis, and the curve surface of each, at its middle, coinciding with the surface of the earth. The latter method has the advantage of representing the objects on the earth's surface much more nearly in their natural shape, than the former. But some single method is evidently wanted, which shall be equally applicable to small and to large portions of the earth's surface;—and this can be only that which preserves the distance of the meridians the same, from the equator to the poles.

But it is more than time that these remarks were brought to a close.—We cannot take our leave of this work, however, without expressing our earnest wish, that it may receive a general admission into our public seminaries. It will be found sufficiently extended for the use of those in which mathematical science is pushed the farthest; and, if more extended than is consistent with the plan adopted by others, several of the less elementary Sections may be omitted, without essential inconvenience. We trust, however, that those directors of the education of youth who may adopt this system, will rather elevate their own standard, than mutilate and depress that of our author.\* Should it be thus instrumental in giving pure science a higher rank than it has hitherto held, in our systems of public education, it would be none of the least of its beneficial effects.

While we recommend the system of Professor Day to the public institutions of our country, we consider it as no less adapted to the use of the private student. The full and luminous manner, in which it is written, will render it an invaluable acquisition to those whose curiosity, or whose professional business, leads them to take a general survey of the elements of science, but whose circumstances require them

\* In saying this, we would not be understood to depreciate the importance of classical, rhetorical, or ethical studies. So far from depressing them to make room for a more extended mathematical course, we think it desirable that the tone of *each* of these pursuits alike should be elevated; and that in most of our public institutions, such an elevation is practicable.

to be wholly, or in part, their own instructors. We know of no work whatever, which we should so soon put into the hands of one who was desirous of being introduced to the different branches of mathematics without a living guide. The illustrations given by our author, indeed, are almost precisely the same with those which the learner would gain from an able instructor. He has scarcely left any room for the subject to be rendered plainer by verbal explanation.

To the professed mathematician, this work cannot, from its design, be expected to supersede the more extensive systems already published. Yet even to him, we conceive that it would not be altogether useless. If it furnishes the experienced instructor with no new principles, it might at least aid him in reducing his acquisitions to the best method,—array known truths in a clearer light,—and suggest those illustrations by which they may be most successfully communicated to others.

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ART. II.—*Travels in France*, during the years 1814-15.

Comprising a Residence at Paris, during the Stay of the allied Armies, (in 1814,) and at Aix, at the Period of the Landing of Bonaparte. 2 vols. 12mo. pp. 571. 16s. Boards. Longman and Co. 1815.—*From the Monthly Review.*

A CIRCUMSTANCE not very common in authorship distinguishes this production: it consists of two independent parts, the tours being performed by separate travellers, and the narrative composed by different writers. A volume is allotted to each, the first being occupied with a journey in the north of France, and a residence of some months at Paris; while the second relates a similar journey in the south, and a stay at Aix, in Provence, from December 1814 to the following March. The authors of both volumes are anonymous, but appear evidently, from the frequency of their allusions to Scottish, and sometimes to Highland customs, to come from the north of the Tweed. The plan of combining the labour of two individuals in one publication possesses the advantage of bringing before the reader, at once, the materials which would otherwise have been sought in separate books; and it affords an opportunity of treating the more interesting particulars, such as national manners, the state of political feeling, the tone of society, &c. at considerable length. In the present case, also, the ground travelled over in the two volumes is sufficiently distinct for the purpose of novelty, and yet sufficiently connected for that of conjunction in the mode of

publication. The details appear thus considerably better in a combined than they would in a separate form, although much might have been done to improve them in the important points of condensation and order.

Vol. I. opens with the journey to Paris in May 1814, a few weeks after the north-east part of France had been occupied by the Russian, Prussian, and Austrian troops. The travellers, on conversing with the peasants, found that the character of Bonaparte, though certainly not in favour, was by no means such an object of hatred as they anticipated. Public affairs occupy the middling and lower orders much less on the opposite side of the channel than with us; while to analyze the duplicity and detect the manœuvres of the late ruler would require a stretch of reflection greatly beyond the intellectual patience of a Frenchman. The writer and his friends were more gratified on reaching Paris, and on enjoying an opportunity of seeing the most remarkable sovereigns and generals in Europe collected within the walls of that metropolis.

‘ It is fortunately superfluous for us to enlarge on the appearance, or on the character of the emperor Alexander. We were struck with the simplicity of the style in which he lived. He inhabited only one or two apartments in a wing of the splendid Elysée Bourbon—slept on a leather mattress, which he had used in the campaign—rose at four in the morning, to transact business—wore the uniform of a Russian general, with only the medal of 1812, (the same as is worn by every soldier who served in that campaign, with the inscription, in Russ, *Non nobis sed tibi, Domine*); had a French guard at his door—went out in a chaise and pair, with a single servant and no guards, and was very regular in his attendance at a small chapel, where the service of the Greek church was performed. We had access to very good information concerning him, and the account which we received of his character even exceeded our anticipation. His humanity was described to us as almost unparalleled. He repeatedly left behind him, in marching with the army, some of the medical men of his own staff, to dress the wounds of French soldiers whom he passed on the way; and it was a standing order of his, to his hospital staff, to treat wounded Russians and French exactly alike.’—

‘ The King of Prussia was often to be seen at the Parisian theatres, dressed in plain clothes, and accompanied only by his son and nephew.—He is known to be exceedingly averse to public exhibitions, even in his own country. He had gone through all the hardships and privations of the campaigns, had exposed himself with a gallantry bordering on rashness in every engagement; his son and nephew always by his side; his coolness in action was the subject of universal admiration.—We had the good fortune of

seeing the duke of Wellington at the opera, the first time that he appeared in public at Paris. He was received with loud applause, and the modesty of his demeanour, while it accorded with the impressions of his character, derived from his whole conduct, and the style of his public writings, sufficiently showed, that his time had been spent more in camps than in courts.—We have often heard Russian and Prussian officers say, he is the hero of the war:—we have conquered the French by main force, but his triumphs are the result of superior skill.'—

' We were much struck by the courteous and dignified manners of old Count Platoff. Even at that time, before he had experienced British hospitality, he professed high admiration for the British character.—His countenance appeared to us expressive of considerable humour, and he addressed a few words to almost every Cossack of the guard whom he met in passing through the court of the Elysée Bourbon, which were always answered by a hearty laugh.'—' The other Russian commanders, whom we heard highly spoken of by the Russian officers whom we met, were, the Marshal commanding, Barclay de Tolly, in whose countenance we thought we could trace the indications of his Scotch origin;—he is an old man, and was commonly represented as, " *sage, prudent, tres savant dans la guerre.*" Witgenstein, who is much younger, and is designated as " *ardent, impétueux, entreprenant,*" &c. Benigsen, who is an old man, but very active, and represented to be as fond of fighting as Blucher himself.—Count Langeron, and Baron Sacken, the commanders of corps in the Silesian army. The former is a French emigrant, but has been long in the Russian service, and highly distinguished himself. The latter is an old man, but very spirited, and highly esteemed for his honourable character: in his capacity of Governor of Paris, he gave very general satisfaction.—Woronzoff, who, as is well known, was educated in England, and who distinguished himself at Borodino, and in the army of the north of Germany, and afterwards in France under Blucher—Winzingerode, one of the best cavalry officers, formerly in the Austrian service—Czernicheff, the famous partisan, a gallant gay young man, whose characteristic activity is strongly marked in his countenance—Diebzitch, a young staff officer of the first promise—Lambert (of French extraction) and Yermoloff: this last officer commanded the guards when we were at Paris, and was represented as a man of excellent abilities, and of a most determined character.'

We have formerly taken occasion to mention (M. R. vol. lxviii. p. 236.) the gross neglect prevalent, until late years, in the medical department of the Russian army: but we are happy to add that the case is now materially altered; the care of the British physicians in that service, particularly sir James Wyllie and Dr. Crichton, seconded by the acquiescing habits of the Russians, having rendered their army-hospitals

deserving of imitation by all their continental neighbours. The consequence was that, in the Russian campaign of 1813, when change of climate, length of marches, and scarcity of provisions, all concurred to engender sickness, the French were much greater sufferers than the soldiers of the north; and nothing could equal the surprise of the Parisians on seeing the allies march into Paris in immense columns, on the 31st of March 1814, after Bonaparte had repeatedly stated that they were reduced to a mere wreck. The British, though not present at this time, were by no means overlooked in the conversations of the French capital.

'It is doing no more than justice to the French officers, even such as were decidedly Imperialist, who conversed with us at Paris, and in different parts of the country, to acknowledge that they uniformly spoke in the highest terms of the conduct of the English troops. The expression which they very commonly used, in speaking of the manner in which the English carried on the war in Spain, and in France, was, "*loyauté.*" "*Les Russes, et les Prussiens,*" they said, "*sont grands et beaux hommes, mais ils n'ont pas le cœur ou la loyauté des Anglais. Les Anglais sont la nation du monde qui font la guerre avec la plus de loyauté.*" &c. This referred partly to their valour in the field, and partly to their humane treatment of prisoners and wounded; and partly also to their honourable conduct in France, where they preserved the strictest discipline, and paid for every thing they took. Of the behaviour of the English army in France, they always spoke as excellent:—"digne de leur civilisation."

'A French officer who introduced himself to us one night in a box at the opera, expressing his high respect for the English, against whom, he said, he had the honour to fight for six years in Spain, described the steadiness and determination of the English infantry in attacking the heights, on which the French army was posted at Salamanca, in terms of enthusiastic admiration. Another, who had been in the battle of Thoulouse, extolled the conduct of the Highland regiments in words highly expressive of

"The stern joy which warriors feel,  
In foemen worthy of their steel."

"*Il y a quelques régimens des Ecossais sans culottes,*" said he, "*dans l'armée de Wellington, qui se battent joliment.*" He then described the conduct of one regiment in particular, (probably the 42d or 79th,) who attacked a redoubt defended with cannon, and marched up to it in perfect order, never taking the muskets from their shoulders, till they were on the parapet: "*Si tranquillement,—sacre Dieu! c'étoit superbe.*"

'Of the military talents of the Duke of Wellington they spoke also with much respect, though generally with strong indications of jealousy. They were often very ingenious in deriving means of explaining his victories, without compromising, as they called it,

the honour of the French arms. At Salamanca, they said, that in consequence of the wounds of Marmont and other generals, their army was two hours without a commander. At Vittoria again, it was commanded by Jourdan, and any body could beat Jourdan. At Talavera, he committed "*les plus grandes sottises du monde; il a fait une contre-marche digne d'un bête.*" Some of the Duke of Wellington's victories over Soult they stoutly denied, and others they ascribed to great superiority of numbers, and to the large drafts of Soult's best troops for the purpose of forming skeleton battalions to receive the conscripts of 1813.'

Having appropriated a portion of the first volume to the public buildings and ornamental collections of Paris, the writer proceeds to discuss the merits of the French character and manners. Severe at first, he seems to become gradually more indulgent as he prolongs his stay in Paris, and as he discovers that the want of any particular virtue does not necessarily imply the absence of the rest.

'An Englishman is apt to pronounce every man a scoundrel, who, in making a bargain, attempts to take him in; but he will often find, on a closer and more impartial examination, that the judgment formed by this circumstance alone, in France, is quite erroneous. One of our party entered a small shop in the Palais Royal to buy a travelling cap. The woman who attended in it, with perfect effrontery, asked 16 francs for one which was certainly not worth more than six, and which she at last gave him for seven. Being in a hurry at the time, he inadvertently left on the counter a purse, containing 20 gold pieces of 20 francs each. He did not miss it for more than an hour; on returning to the shop, he found the old lady gone, and concluded at first, that she had absented herself to avoid interrogation; but to his surprise, he was accosted immediately on entering, by a pretty young girl, who had come in her place, with the sweetest smile imaginable,— "*Monsieur a oublié sa bourse—que nous sommes heureuses de la lui rendre.*"'

'But what distinguishes the French from almost every other nation, is the *general diffusion* of the taste for the fine arts, and for elegant amusements, among all ranks of the people. Almost all Frenchmen take not only a pride but an interest in the public buildings of Paris, and in the collections of painting and statues. There is a very general liking for poetry and works of imagination among the middling and lower ranks: they go to the theatres not merely for relaxation and amusement, but with a serious intention of cultivating their taste, and displaying their critical powers. Many of them are so much in the habit of attending the theatres when favourite plays are acted, that they know almost every word of the principal scenes by heart. All their favourite amusements are in some measure of a refined kind. It is not in drinking-clubs, or in sensual gratifications alone, that men of these ranks seek for

relaxation as is too often the case with us; but it is in the society of women, in conversation, in music and dancing, in theatres and operas, and cafés and promenades, in seeing and being seen; in short, in scenes resembling, as nearly as possible, those in which the higher ranks of all nations spend their leisure hours.

' While the useful arts are comparatively little advanced, those which relate to ornaments alone are very generally superior to ours; and the persons who profess these arts speak of them with a degree of fervour that often seems ludicrous. "Monsieur," says a perruquier in the Palais Royal, with the look of a man who lets you into a profound secret in science, "*Notre art est un art imitatif; en effet, c'est un des beaux arts;*" then taking up a London made wig, and twirling it round on his finger, with a look of ineffable contempt, "*Celui ci ne'st pas la belle nature; mais voici la mienne, —c'est la nature personifiée!*"' —

' The last peculiarity in the French character, which we shall notice, is perhaps the most fundamental of the whole; it is their love of mixed society; of the society of those for whom they have no regard, but whom they meet on the footing of common acquaintances. This is the favourite enjoyment of almost every Frenchman: to shine in such society is the main object of his ambition: his whole life is regulated so as to gratify this desire. He is indifferent about comforts at home—he dislikes domestic society—he hates the retirement of the country; but he loves, and is taught to love, to figure in a large circle of acquaintance, for whom he has not the least heartfelt friendship, but with whom he is on the same terms as with perfect strangers, after the first half hour. If he has acquired a reputation in science, arts, or arms, so much the better, his *glory* will be of much service to him; if not, he must make it up by his conversation.' —

' Of the devotion of the French to the sort of life to which we refer the best possible proof is, their fondness for a town life; the small number of chateaux in the country that are inhabited—and the still more remarkable scarcity of villas in the neighbourhood of Paris to which men of business may retire. There are a few houses of this description about Belleville and near Malmaison; but, in general, you pass from the noisy and dirty Fauxbourgs at once into the solitude of the country; and it is quite obvious, that you have left behind you all the scenes in which the Parisians find enjoyment.'

In proceeding from Paris to Flanders in the direction of Champagne, the travellers came to Laon and Craone, where they had an opportunity of observing the scenes of Blucher's successful resistance to Bonaparte. Passing onwards, then, on the road to St. Quintin, they were much gratified by the appearance of a delightful valley and a great *chateau*, exempt from all those signs of neglect and ruin which so frequently

bore evidence of the ravages of the revolution. They found that the proprietor, the chevalier Brancas, had constantly acted an humane and moderate part towards his tenants; who, in return, instead of rising up against him and compelling him to emigrate, proved a rampart of safety to him during the horrors of that crisis. How much would the *noblesse* at large have consulted their interest by following the example of this benevolent character, instead of extorting the last farthing from their vassals, to be squandered in the thoughtless prodigality of the metropolis!

‘At the distance of three miles from the town of Cambray, the road crosses the frontiers of French Flanders. We had long been looking for this transition, to discover if it still exhibited the striking change described by Arthur Young, ‘between the effects of the despotism of old France, which depressed agriculture, and the free spirit of the Burgundian provinces, which cherished and protected it.’ No sooner had we crossed the old line of demarcation between the French and Flemish provinces, than we were immediately struck with the difference, both in the aspect of the country, the mode of cultivation, and the condition of the people. The features of the landscape assume a totally different aspect; the straight roads, the clipt elms, the boundless plains of France, are no longer to be seen; and in their place succeed a thickly wooded soil and cultivated country. The number of villages is infinitely increased; the village spires rise above the woods in every direction, to mark the antiquity and the extent of the population: the houses of the peasants are detached from each other, and surrounded with fruit-trees, or gardens kept in the neatest order, and all the features of the landscape indicate the long established prosperity by which the country has been distinguished.’—

‘But it is principally in the condition, manners, and comfort of the people that the difference between the French and Flemish provinces consists. Every thing connected with the lower orders indicates the influence of long established prosperity, and the prevalence of habits produced by the uninterrupted enjoyment of individual opulence. The population of Flanders, both French and Austrian, is perfectly astonishing; the villages form an almost uninterrupted line through the country; the small towns are as numerous as villages in other parts of the world, and seem to contain an extensive and comfortable population. These small towns are particularly remarkable for the number and opulence of the middling classes, resembling in this as well as other respects the flourishing boroughs of Yorkshire and Kent, and affording a most striking contrast to those of a very opposite description, which we had recently passed through in France.

‘The cottages of the peasantry, both in the villages and the open country, are, in the highest degree, neat, clean, and com-

fortable; built for the most part of brick, and slated in the roof; nowhere exhibiting the slightest symptoms of dilapidation. These houses have almost all a garden attached to them, in the cultivation of which the poor people display, not only extreme industry, but a degree of taste superior to what might be expected from their condition in life.'—

'The farm-steadings and implements of husbandry, in all parts of Flanders, are greatly superior to those in France. The waggons are not only more numerous on the roads, but greatly neater in their construction than in France; the ploughs are of a better construction, and the farm offices both more extensive and in better repair. Every thing, in short, indicated a much more improved and opulent class of agriculturists, and a country in which the fundamental expenses of cultivation had long been incurred.

'Near Cambray, the wages of labour are one franc a-day. Near Valenciennes, and from that to Mons, they are from one franc to 25 sous, that is, from 10d. to 12½d. From Mons to Brussels, and round that town, from one franc to 30 sous, that is from 10d. to 15d.'

Vol. II. describes a journey from Paris to Aix in Provence, performed in November 1814. The party on this occasion consisted of three ladies, a child, a servant, and a gentleman whose health had been shaken by the climate of India. Comfort being more an object with them than expedition, they declined the stage-coaches (*diligences*) as well as the ordinary mode of posting, in favour of an alternative which is much practised on the continent, viz. that of travelling all the way in the same hired carriage, and with the same horses. Their rate of daily progress was about thirty miles; and the average expense at the inns for beds, breakfast, and dinner (or, as the inn-keepers chose to call it, supper), was from a guinea to twenty-five shillings *per day* for the whole party. This expenditure seems to be very reasonable: but we are to take into the account that the accommodation was inferior to that which we should expect, were we to form our ideas from our own country.

'There is about every town and village an air of desolation; most of the houses seem to have wanted repairs for a long time. The inns must strike every English traveller as being of a kind entirely new to him. They are like great old castles half furnished. The dirty chimneys suit but ill with the marble chimney-pieces, and the gilded chairs and mirrors, plundered in the Revolution; the tables from which you eat are dirty common wood; the linen coarse though clean. The cutlery, where they have any, is very bad; but in many of the inns they put down only forks to dinner.'—

*Nevers.*—'We went to walk in the town this morning.—(Sunday.) The description of one French town on the Sunday will serve

for all the towns which we have seen. They are every day filthy, but on Sunday, from the concourse of people, more than commonly dirty. They never have a pavement to fly to for clean walking, and for safety from the carriages. If you are near a shop, a lane, or entry when a carriage comes along you may fly in, if not, you must trust to the civility of the coachman, who, if polite, will only splash you all over, if otherwise, will squeeze you against the wall, in a way that at least, frightens you to death. On Sundays, their markets are held the same as on other days, and nearly all the shops had their doors open, but *their windows shut.*'—

'The shopkeepers are, as in every town we have been at, perfect Jews, devoid of any thing like principle in buying and selling. One told my sister that he would give her 19 francs for her English guineas; another first offered her 20 francs, and on hearing that she expected 26, immediately offered her 25. We are every day learning more and more how to overcome our scruples with regard to *beating them down*. They always expect it, and only laugh at the silly English who do not practise it.'—

'To-morrow, we set out at seven.—We find our way of travelling very tedious; but I think in summer it would be by far the best. Our three horses seldom take less than 10, sometimes 13 hours to their day's journey, of from 28 to 32 miles; but our carriage is large and roomy; and had we any thing like comfort at our inns, as at home, we should find the travelling very pleasant. The greatest annoyance arises from your having always to choose from the two evils, either of being cheated most shamefully, or of higgling and trafficking for your meals beforehand.'—

'The cottages on the road, and in the small towns, are completely in the *Maclarty style*; the men, women, children, pigs, fowls, &c. all pigging together. The pigs here are so well accustomed to entring the houses, that when they are shut up, *you see them, as it were rapping at the door with their snouts.*—On being annoyed this morning by a most inhuman smell, I went into the kitchen, and found, that a gentlemen had just arrived, wearing one of the many badges of honour at his button, and having his lady with him; they had just ordered *some whole onions to be fried in butter!! A French breakfast!!*

On arriving at Avignon, the travellers were pleased with the cleanness of the streets, and the respectable appearance of some of the houses. They visited with great eagerness the classic stream of Vaucluse, and the site of the tomb of Laura; we say the site, because the tomb, if it exists, has not been cleared from the earth that covers it, and is known only by a small cypress-tree planted to mark the spot. In two days more they reached Aix; where they remained above three months, and were just beginning to complain of

the monotony of the scene, when Bonaparte, landing at Cannes, threw the whole country into a ferment. At Aix, as in other towns of France, he was at first branded as a traitor who came to ‘rob the country of the happy tranquillity which she was enjoying under the Bourbons;’ and ‘it could only be the English government which, in its unrelenting hatred to France, had let loose this *brigand*.’ Such were the feelings, not only of the royalists, but of the greater part of the republicans, as long as they dreaded a civil war: but the disposition of the latter became favourable to Bonaparte, as soon as they saw him in quiet possession of the government at Paris. They had by that time persuaded themselves that he had been recalled by the majority of the nation; and they were weak enough to give credit to a tale, which he artfully circulated, of his having concluded a twenty years’ truce with the allies, before he left Elba. Our travellers, however, determined to set out without delay, and to seek an opportunity of embarking at Bourdeaux, before they should be exposed to that indefinite detention of which, on a preceding occasion, so many of our countrymen had been the victims. Their route to Bordeaux lay through Languedoc; and they traversed that province at the time when the duke D’Angouleme was making an ineffectual attempt to stem the torrent of military defection. Though they advanced at the rate of only thirty miles in a day, they were the first bearers of authentic news to every inn; or rather they were the only persons in those homely receptacles who were enabled to appreciate the ridiculous stories circulated among a thoughtless and credulous people. The inhabitants appeared almost every where to be royalists; the troops alone maintained a gloomy silence.

It is common in some parts of France to travel in what are called *coches d'eau*, or passage boats; the comforts of which, in Languedoc at least, appear to be much on a level with those of the country-inns.

‘Wednesday, 22d March.—Left Pezenas at half past five, and arrived to breakfast at half past nine at Beziers. We went to see the *coches d'eau*, described as *superbs* and *magnifiques* by our French friends. Their ideas differ from ours. It would be perfectly impossible for an English lady to go in such a conveyance, and few gentlemen, even if alone, and with only a portmanteau, would venture. The objections are—there is but one room for all classes of people; they start at three and four each morning; stop at miserable inns, and if you have heavy baggage, it must be

shifted at the locks, which is tedious, and costs a great deal. Adieu to all our airy dreams of gliding through Languedoc in these *Cleopatran vessels*. They smell, they are exposed to the inclemencies of the weather, and they are filled with bugs, fleas, and all kinds of bad company. The country to-day though still very flat, is prettier. Very fine large meadows, with willows, but too regular. Bullocks as common as mules in the plough. Wheat far advanced, and barley, in some small spots, in the ear.'—

'Tuesday, the 28th.—This morning, at three, I left my party, and took a very light gig, determined (as the news were getting daily worse, and the road full of English hurrying to Bordeaux) to post it from Agen. By paying the post-boys double hires, we got on very fast, and although we broke down several times, we arrived at Bordeaux at six in the evening, a distance of more than a hundred miles. The country from Agen to Bordeaux is the richest I have seen in France, chiefly laid out in vines, dressed with much more care than any we have yet seen; a good deal also of fine wheat, and some meadows of grass pasture. Every thing is much further advanced than in Languedoc, even allowing for the advance in the days we have passed in travelling. Barley in the ear, and some even yellowing. Bourdeaux is a noble town, though not so fine, I think, as Marseilles.'—

'Thursday, the 30th.—Things look very ill. The fort of Blaye has hoisted the tri-coloured flag. The town of Bourdeaux is in a dead calm; but I am sure all is not well. The cries of *Vive le Roi* are not heard to-day. The Duchess d'Angouleme passed through the streets to-day, and visited the *casernes* of the troops. Poor woman! her exertions are incessant. To her addressess the people are enthusiastic in their replies, *but the troops are sullen and silent*; they answered, that they would not forget their duty to her, as far as not injuring her. I hope that she passed our door this evening for the last time, and that she has left Bourdeaux. Every individual in Bourdeaux, the troops excepted, hate and detest the tyrant as cordially as he detests them.

'Friday, the 31st.—We left Bourdeaux at half past five: the utmost tranquillity in the streets; not a soul stirring. Our coachman reported, that general Clausel had reached the gates, and that the national guard had been beat off.—Arrived at the inn at half way, we met with the Marquis de Valsuzenai, who confirmed the bad news: the town has capitulated without almost a shot. Two men only have been killed; a miserable resistance! But it could not be otherwise, as no militia could long stand against regulars. Still I expected tumults in the streets, rising among the inhabitants; weeping and wailing. But no.'

The conclusion of the narrative informs us that, after a tedious and uncomfortable passage, the party landed in Devonshire and proceeded to Scotland. The rest of the second

volume is occupied with an account of the state of France, political and social; with a variety of observations on Bonaparte; and finally with a comparative register of the weather from December, 1814, to the succeeding March, in which the respective temperatures of Aix and Edinburgh are contrasted, and found, as we might expect, to exhibit very different results. We extract a few remarks from the part of the volume which is appropriated to national manners.

‘An Englishman never dreams of entering into conversation without some previous knowledge upon the point which is the subject of discussion. You will pass but few days in France before you will be convinced, that to a Frenchman this is not at all necessary. The moment he enters the room or *café*, where a circle may happen to be conversing, he immediately takes part in the discussion—of whatever nature, or upon whatever subject that may be, is not of the most distant consequence to him. He strikes in with the utmost self-assurance and adroitness, maintains a prominent part in the conversation with the most perfect plausibility; and although from his want of accurate information, he will rarely instruct, he seldom fails to amuse by the exuberance of his fancy, and the rapidity of his elocution.—

“*Un Français,*” says M. de Steal with great truth, “*scait encore parler, lors même il n'a point d'idées;*” and the reason why a Frenchman can do so is, because ideas which are the essential requisites in conversation to any other man, are not so to him. He is in possession of many substitutes, composed of a few of those set phrases and accommodating sentences which fit into any subject: and these mixed up with appropriate nods, significant gestures, and above all with the characteristic shrugging of the shoulders, are ever ready at hand when the tide of his ideas may happen to run shallow.—

‘He cannot be grave or unhappy, because he never allows himself time to become so. His mind is perpetually busied with the affairs of the moment. If he is in company, he speaks without introduction, to every gentleman in the room. Any thing the most trivial serves him for a hook on which to hang his story; and this generally lasts as long as he has breath to carry him on. He recounts to you, the first hour you meet with him, his whole individual history; diverges into anecdotes about his relations, pulls out his watch, and under the cover shows you the hair of his mistress, apostrophizes the curl—opens his pocket-book, insists upon your reading his letters to her, sings you the song which he composed when he was *au desespoir* at the parting, asks your opinion of it, then whirls off to a discussion on the nature of love; leaves that the next moment to philosophise upon friendship, compliments you, *en passant*, and claims you for his friend; hopes that the connection will be perpetual, and concludes by asking you to

*do him the honour of telling him your name.* In this manner he is perpetually occupied: he has a part to act which renders serious thought unnecessary, and silence impossible. If he has been unfortunate, he recounts his distresses, and in doing so forgets them. His mind never reposes for a moment upon itself.'—

' Every thing in a French *Diligence* is life, and motion, and joy.—The coach generally holds from ten to twelve persons, and is sufficiently roomy.—The moment you enter you are on terms of the most perfect familiarity with the whole set of your travelling companions. In an instant every tongue is at work, and every individual bent upon making themselves happy for the moment, and contributing to the happiness of their fellow-travellers. Talking, joking, laughing, singing, reciting,—every enjoyment which is light and pleasurable is instantly adopted.—A gentleman takes a box from his pocket, opens it with a look of the most finished politeness, and presents it, full of sweetmeats, to the different ladies in succession. One of these, in gratitude for this attention, proposes what she well knows will be agreeable to the whole party, some species of round game like our cross-purposes, involving forfeits. The proposal is carried by acclamation,—the game is instantly begun, and every individual is included.'—

' The French carry on every thing in public, every thing, whether it is connected with business or with pleasure, whether it concerns the more serious affair of political government, or the pursuit of science, or the cultivation of art, or whether it is allied only to a taste for society, to the gratification of individual enjoyment, to the passing occupations of the day, or the pleasures of the evening, all, in short, either of serious or of lighter nature, is open and public. It is carried on abroad, where every eye may see, and every ear may listen.—

' The French nobility, and the men of property who still remain in the kingdom, invariably pass their lives in Paris. Their whole joy consists in exhibiting themselves in public in the capital. Their magnificent chateaus, their parks, their woods and fields, and their ancient gardens, decorated by the taste and often cultivated by the hands of their fathers, are allowed to fall into unpitied ruin. If they retire for a few weeks to their country-seat, it is only to collect the rents from their neglected peasantry, to curse themselves for being condemned to the *triste séjour* of their paternal estate; and after having thus replenished their coffers, to dive again, with renewed strength, into all the publicity and dissipation of the capital.'

We conclude our quotations by some curious passages relative to French dress, which were suggested to the travellers on visiting at the house of one of the principal lawyers at Aix.

' We were received in a very neat and very handsome furnished house. The mother and daughter were well and handsomely dressed. But seated on one side of the room, was a young man

in an old, dirty, torn great coat, with a Belcher handkerchief about his neck, a pair of old military trowsers, of worse than second cloth, dirty white stockings, and his shoes down at the heel—this was the counsellor's brother. Never was a more blackguard-looking figure. But this is the French fashion in the morning, and often all day the gentlemen are seen in this way.'—

'Among the higher ranks of society you will find many obliging people; but you will also find many whose situation alone can sanction your calling them gentlemen. There appears also in France to be a sort of blending together of the high and low ranks of society, which has a bad effect on the more polite, without at all bettering the manners of the more uncivilized. Now, really, to find out who are gentlemen, and who not, without previously knowing something of them, or entering into conversation, is very difficult. In England, all the middling ranks dress so well, that you are puzzled to find out the gentlemen. In France, they dress so ill in the higher ranks, that you cannot distinguish them from the lower.'—

'In the higher ranks among the French, a gentleman has indeed a good suit of clothes, but these are kept for wearing in the evening on the promenade, or at a party. In the morning clothes of the coarsest texture, and often much worn, or even ragged, are put on. If you pay a lady or gentleman a morning visit, you find them so metamorphosed as scarcely to be known; the men in dirty coarse cloth great coats, wide sackcloth trowsers and slippers; the women in coarse calico wrappers, with a coloured handkerchief tied round their hair. All the little gaudy finery they possess is kept for the evening.'

In stating our objections to this work as a literary composition, we must remark that it contains, particularly in the second volume, too much detail about small matters; and, which is worse, somewhat of a disposition to go to extremes in the descriptive colouring both of places and individuals. This is more particularly apparent when the author is speaking of the disbanded soldiers of Bonaparte's army, whose aspect is repeatedly styled 'blackguard and ruffian-like.' Now, whatever may be their appearance from bad clothing or long exposure to the weather, the truth is that these men have lapsed very quietly into the labouring classes, and have scarcely ever been known to commit any of those offences which the sight of them suggested to the imagination of our travellers. Nothing can be a stronger proof of this fact than their forbearance from personal injury and insult towards either the royal party or the emigrants, at the time of the general flight in 1815. In the next place, it is much to be regretted that a respectable writer should have introduced into his pages the string of pretended anecdotes of Bonaparte, which are recorded in Vol. ii. p. 96, *et seq.*; and which,

whether they relate to his ferocity, his vanity, or, as is the case in one or two instances, to his humanity, we believe to be indiscriminately the fabrication of Parisian scribblers. The only part of this chapter that bears the appearance of authenticity is the narrative (p. 149.) of the sub-prefect of Aix, who accompanied Bonaparte from that town to the coast; and the insignificance of the particulars related by that officer affords presumptive evidence against the wondrous tales proceeding from more doubtful sources. Lastly, with regard to the typography of these volumes, we must observe that it is frequently incorrect, and discovers such errors as Russia (Vol. i. p. 252.) for Prussia; *fonciese* (Vol. i. p. 279.) for *foncier*; *Essconne* (Vol. ii. p. 5.) for *Essonne*; De Gomnier (Vol. ii. p. 103.) for Dugommier, &c. Repetitions likewise occur frequently, and sometimes in passages very near to each other, as in the account of the Flemish farmers and cottages; who are represented on two occasions (Vol. i. p. 266. and 274.) as possessing over their French neighbours the same advantages in nearly the same words. We suspect, therefore, that the MS. has been sent to the press, and the work of the press sent into the world, each without sufficient revisal; an omission which it very often falls to our lot to reprehend, and which in the present case we notice the more because the writers are men of observation and reflection, and were evidently capable of careful and finished composition. The comments on the pictures and statues (Vol. i. p. 93. *et seq.*) will be read with particular interest.

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**ART. III.—1.** *Sermons by the late Rev. J. S. Buckminster, with a Memoir of his Life and Character.* Boston. 1814. John Eliot. 8vo. pp. 430.

**2.** *Sermons by the Rev. John B. Romeyn, D. D. Pastor of the Presbyterian Church in Cedar-Street, New-York.* In two volumes. 8vo. J. Seymour.

**3.** *The Life and Power of True Godliness; described in a Series of Discourses.* By Alexander M'Leod, D. D. Pastor of the Reformed Presbyterian Church, New-York. James Eastburn & Co. and William Gilley. 1816. 8vo. pp. 424.

**4.** *Ten Sermons on Faith.* By Ezra Stiles Ely, A. M. Pastor of the Third Presbyterian Church in the City of Philadelphia. Rufus Little. 1816. 12mo. pp. 216.

**O**UR readers need not be alarmed at this array of theological title-pages. We are not about to become religious polemics; neither shall we set ourselves up for judges, in

all matters of faith and practice. The nature of our publication would forbid us to enter into any dispute about systems of religious opinion. There is, however, some connexion between the general literature of our country and the books which are published on the subjects of religion: and so far as sermons may be considered in a literary point of view, we are disposed to pay them some attention. Indeed, unless we pursue some such course as this, we shall be obliged to pass by, without appearing to observe, the greater part of the literary efforts of the clergy of the United States; for they ordinarily employ all their learning in the elucidation of some subject analogous to the nature of their profession. On this side of the Atlantic, at least, more than half of all the productions, which issue from the press, are written by men devoted to the public services of the church; and, if we examine the lists of new publications in the English journals, we shall find, in every department of letters, Reverend Bishops, Deans, Curates, and Pastors, by no means the least numerous class of authors. Until very lately, the lawyers and the physicians, in America, have been too busy to write much; or else have enjoyed so little of the public confidence, that a bookseller would not risk the publication of what they wrote. The ministers of religion, on the other hand, seem to have enjoyed more leisure; and almost any one of them may find so many purchasers among his own flock, and intimate acquaintance, as to defray the expense of a small edition. Hence it is, that you can scarcely find a clergyman, especially in New England, who has not published one or two *Occasional Discourses*, delivered either at the general election, an ordination, or a funeral. Volumes of sermons have, nevertheless, been rather scarce, among our publications; from no want of matter, we presume; nor from any disinclination to write; but from the reluctance of the people to purchase any writings, except those of some venerable English or Scotch divine. The only volumes of sermons of any considerable note which have originated in America, until those enumerated in the commencement of this paper, have been written by Drs. Edwards, Witherspoon, Davies, and Smith, Presidents of Princeton College; Macwharter and Griffin of New Jersey; Strong, Smalley, Bellamy, and Lee of Connecticut; President Nott, of New York; Lathrop (of West-Springfield), Emmons, Tappan, and Stillman, of Massachusetts; and Kollock, of Georgia. Dr. Nott's Sermons were first published separately; and have been since collected and republished. The Rev. Dr. Morse of Charles-

town, President Livingston, the Rev. Dr. Mason of New-York, the Rev. Dr. Miller of Princeton, the late President Dwight, and Bishop White of Pennsylvania, have given the public one or two discourses at a time, very frequently, which, were they reprinted, after a due arrangement, would, we think, leave a lasting memorial of their respective authors. The sermons of Edwards, Witherspoon, and Emmons evince the strong predilection of their authors for metaphysical science. Of these three, the last writes in the most neat and lucid manner; but has less good sense than either. They were all metaphysicians of the school of Locke: but Edwards, on the laws of volition particularly, stood pre-eminent above all other writers. The sermons of Davies manifest a lively imagination and ardent feelings; but comparatively little of human reasoning. He was too much on fire to argue deliberately; but he adduced scripture to back his assertions; and overwhelmed his audience by eloquent interrogations. His sermons are perhaps among the most pathetic in our language. Nott's discourses, like those of Davies, are almost entirely addressed to the finer emotions of his audience; but they are somewhat stiff, and much more laboured than we could wish. He evidently thinks that religion is to be promoted in the world, rather by sensibility than by solid reasoning. Bellamy was as ardent as Davies; but he has less refinement, and rather more logic. Lee is a plain sermonizer; but has considerable originality of thought, and gives us quite ingenious explanations of several difficult passages of the Bible. Griffin and Miller are smooth writers, and quite persuasive in their manner. Sometimes, however, the former thunders; while the latter is always like a clear morning in May. The Bishop of Pennsylvania is chiefly remarked for the mildness and dignity of his preaching. Dr. Morse shines in historical discourses; and excels in compiling from the best human authorities. He is always clear,—often pungent; but not over fond of invention. Lathrop's sermons, and they are many, are written with great ease; but frequently resemble essays and commentaries, rather than systematic discourses. Tappan is rather more elegant and nervous than Lathrop; but in other respects much like him. Macwharter, Strong, Smalley and Stillman are all plain writers; who divide each text regularly; and then adduce a few passages of holy writ, with explanations, to support each grand, and subordinate division. Dr. Dwight was a man of extensive acquirements and flowing language. Redundancy in diction was his chief fault as a preacher. Dr. Mason seems

to find all the resources in his own mind and in his Bible, which Dwight found in the whole circle of society, and a universal library. We have not forgotten in the enumeration President Livingston, of Queen's College, in New-Jersey. Take him for all in all, we think he is one of the most dignified, graceful, energetic, powerful, and persuasive speakers we ever beheld in a pulpit. Mr. Kollock's sermons we have not had an opportunity of reading; neither have we heard him preach since he was Professor of Divinity at Princeton College. Then, in spite of his monotony, he could arrest, and move, and melt an audience. We are not ignorant that Bishop Hobart of New-York, Bishop Moore, and the Rev. John H. Rice of Virginia, the Rev. Dr. Flin, of Charleston, South-Carolina, and the Rev. Dr. Inglis, with Mr. Glendy, and Mr. Duncan of Baltimore, are among the most celebrated pulpit orators of the United States; but we have not enough of their sermons in our possession, to form a comparative estimate of their respective merits.

Of the sermons, that have been the immediate occasion of this article, we shall treat but briefly. We will not say that Mr. Buckminster's are the best *sermons* of American manufacture; but they are certainly some of the best specimens of *fine writing*, which we have found among all the divines of our day. In general, he uses texts merely as mottos; a practice which we believe to be a violation of one of the first laws of scriptural sermonizing. With his system of doctrine, we shall not attempt to interfere. Suffice it to say, he is consistent with himself. He aims, principally, at convincing those who may doubt of the truth of the historical facts contained in the New-Testament; and at making accurate discriminations, between the christian virtues, and those vices which attempt to counterfeit them. He accomplishes too his aim. His sermon, entitled *The Influence of the Gospel on the Character and Condition of the Female Sex*, is, we think, as fine a history of woman, and, at the same time, as elegant an encomium on her, as any man of taste and feeling might ever wish to peruse. The *Memoir* of the life and character of this accomplished youth, is interesting;—no part of it more so than the letter from Buckminster's sister, in which she describes his conduct in the state of childhood.

We have found only two or three verbal inaccuracies in his volume (in the words *betray*, which should be *betrays*, p. 335, and *imperfect*, which should be *perfect*, p. 356); and it would excuse at least fifty, that the publication is posthumous. In accuracy and elegance of diction, we wish all our

preachers would imitate Mr. Buckminster. One example of his beautiful style, and taste in selection of figures must be given; even though we had purposed to give no extracts in this article. In speaking of the Supreme object of regard, he says,

' It is objected, then, that a Being so far removed beyond the limits of human conception, can hardly be the object of confidence and love. We can fear infinite power, we can be astonished at unsearchable wisdom, we can be awed by inapproachable purity, joined by inconceivable grandeur; but to love a Being, who has nothing in common with mortality, nothing visible, tangible, or audible about him, is not within the ordinary exercise of man's affections. Yet it appears to me, that this single circumstance, that God is not the object of any one of our senses, is abundantly compensated by the consideration, that he is never absent from us; that he compasseth continually our path and our lying down, and that we cannot remove a step from the sphere of his presence; that every sigh, which escapes us, reaches his ear, and not an affectionate movement springs up in our hearts, to which he is not intuitively attentive. The faintest glow of gratitude, which lights up the countenance, shines before his eyes; and the least cloud of godly sorrow, which passes over the brow, sends its shade to the throne of God, encompassed as it is with "undiminished brightness." ' p. 247.

The sermons of Dr. Romeyn and Mr. M'Leod are not so accurate and elegant as those of Mr. Buckminster; but they are more argumentative and elaborate. We might say, antithetically, that *his* structures are of modern architecture;—*theirs* resemble the ancient castles of private gentlemen, which were armed at all points. *He* has more beauty in his works; *they*, more strength. Dr. Romeyn's discourses are more easy and descriptive than those of Mr. M'Leod: but, in precision, argument, and energy, the latter bears away the palm from both of the former divines. Dr. Romeyn is bold and pungent; or, to borrow an expression from one of his most respectable hearers, 'he is such a little archer as gives a sinner no chance to dodge.' Now and then these New-York gentlemen misplace *shall* and *will*, or give us a Dutch or Scotch peculiarity; little faults with which Messrs. Buckminster, Ely, and those who have never heard any brogue in their childhood, are not chargeable. A few of Dr. Romeyn's sentences would justify severe animadversions, had we time and space for them; and it would be no difficult matter to show, that, excellent as Mr. M'Leod is in metaphysics, he does not always maintain that precision of language, which is desirable, and which alone can prevent the slang of shal-

low declaimers, who think it a refutation of every course of ratiocination to call it ‘metaphysical jargon.’ Dr. Romeyn endeavours to convince and persuade his readers, by appealing to the inspired oracles, to history, and to common observation of matters of fact: while Mr. M‘Leod, in addition to these resources, teaches his readers to think for themselves, and philosophically account for their opinions. Romeyn makes long quotations, M‘Leod short ones, and Buckminster none at all—except from Dr. Paley. He introduces much scriptural language by way of accommodation, and frequently in the language of some modern translations; but the other writers adhere to the old fashion of giving you the chapters, verses, and words.

The style of Mr. Ely’s pulpit oratory is different from all the others; and is, we believe, peculiar to himself. It is almost entirely didactic. Even the appeals to the heart are rather doctrinal, than passionate. He attempts and succeeds in great accuracy of language, and niceness of metaphysical distinction. His aim, doubtless a good one, is to reduce the theological vocabulary to something like the precision, which is now the exclusive boast of the mathematical science. Owing to the numerous associations and nice shades of thought, which we have in moral and religious subjects, it is perhaps impossible to give that perfect accuracy to our language, in those departments, which it is so desirable to consummate. Mr. Ely’s divisions are numerous, though generally happy; and his mode of exhibiting truth is perspicuous in a high degree. All this is commendable; but the extraordinary accuracy, at which he aims, seems to be inconsistent with great boldness and energy of manner. Though his auditors are not hurried away by a resistless torrent of eloquence, however, nor experience strong excitements of the passions, they have their stock of knowledge increased, and their understandings enlightened;—the most solid and permanent advantages, which can be derived from any species of public speaking. This is the more to be commended, as nearly all our public speakers in America,—lawyers, legislators, and preachers— are ‘too wordy’—too much inclined to pour out a torrent of words without any other effect, and often without any other apparent design, than that of making a speech.

Of all these reverend gentlemen we would say, they resemble the British more than the French divines. At the same time that we approve of this, we would like to see a little more of the French vivacity, and fire of imagination, infused into the pulpit exhibitions of our country. While

we would be sorry that Massillon should be taken as a model, we would wish some of his eloquence, and some of Saurin's splendour, along with the solidity of Tillotson. The style and manner of all the gentlemen we have been speaking of, show that, if we are yet behind the European scholars in literature, we are yet following close after them, and give every ground to hope, that we shall ere long overtake them. Indeed we have sermons in some of these collections, equal, in our opinion, to any thing, in their way, ever produced, either in France or in Britain.

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ART. IV.—*Travels in Brazil.* By Henry Koster. With a Map and Plan, and eight coloured Engravings. 4to. pp. 500. Longman & Co. London. 1816.—From the Eclectic Review.

THE attention and interest now attracted, and which will be progressively more attracted, to the southern, and to what was till lately the Spanish part of the northern division of the American Continent, as the scenes of momentous changes in the state of the nations, and of wonderful phenomena in nature, will ensure a favourable reception to every authentic work which brings from those quarters any considerable share of new information. Within the last comparatively few years, a number of travellers have ventured, and have brought us their contributions; farther above all others, Humboldt, who has accomplished more, (aided indeed by a very able associate,) than it would be reasonable to expect from any future individual zealot for novelty and knowledge. When we reflect on the extent of the tracts surveyed by him; on their quality, with respect to the difficulty and toil of traversing them, and the diversity of their appearances, and on the various distinct classes of the traveller's observations and researches, it is truly wonderful to behold such an exemplification of what is practicable to a mind shut up in a frame of heavy matter, slow of movement, soon fatigued, and liable to innumerable maladies and mischiefs.

But inferior explorers may be confident of receiving their share of attention, even though they decline all greatness of enterprise, not venturing toward the central depths of the Continent, nor approaching the summits, nor even bases, of snowy mountains. Brazil, besides, is not as yet within the sweep of that grand political tempest which is at once ravaging, and clearing of foreign tyranny, so wide a portion of that western world. The author of this present volume went

there for the sake of health; and made his excursions, observations, and notes, without any thought of publication.

‘ Some time after my return to England,’ he says, ‘ I was encouraged to put together the information which I might be able to impart. The reader will be more disposed to excuse what defects he may find, when he is informed that I went out young, that I did not gather any knowledge of the country in a systematic manner with the idea of giving it to the public, and that the idiom of a foreign language is perhaps more familiar to me than that of my own. But among judicious readers the style of works of this description will be regarded as of little importance. I have had the advantage of Mr. Southey’s advice and extensive library. I have to thank Dr. Traill for his aid in preparing the Appendix.’

He had a pleasant voyage, of thirty-five days, from Liverpool to Pernambuco, at the latter end of the year 1809; and he has shown good sense and a good example in telling this in a single sentence. He very properly gives a rather minute description of the singularly formed American port, accompanied with a neat plan, furnished, he says, by an English gentleman resident there, ‘ who is indefatigable in the search of whatever may contribute to the increase of knowledge.’ It seems to be by something very like a caprice, that nature has left there any harbour at all. At Recife, (for that is the name of the town ‘ Pernambuco being properly the name of the captaincy,’) the stranger instantly found himself in pleasant society, native and imported, and entered with vivacity into their convivialities. He took a cottage at a beautiful place where the better sort of people go to reside during the summer months, at a short distance in the country. The society he acknowledges was very frivolous, and not always very temperate. At many of the houses of the Portuguese, he ‘ found the card-tables occupied at nine o’clock in the morning; when one person rose another took his place;’ and thus, excepting an interval for dinner, the battle would be gallantly fought the live-long day, against the old invading enemy Time. There were other auxiliary resources, ‘ music, dancing, playing at forfeits,’ dinner parties, and rides to Recife. The habits, indeed, he remarks, were very much the same, at this place of summer adjournment, as at the English watering places. In the town, however, which consists of three compartments, and contains 25,000 inhabitants, the state of society is more reserved and ceremonious. The native Portuguese merchants, especially, maintain a style of stately retirement, in their mansions; into some of which, nevertheless, our author made his way; but he will not own that he is much the wiser for the privilege.

There are a multitude of occasions for observing what a mighty power of ingenuity, or we may say genius, is exercised by the disparity of the human mind. The most striking of the exemplifications is, that Religion, even the Christian Religion, the grand heaven-descended opponent of all evil, can be perverted by this genius, to subserve absolutely *every* purpose of iniquity and vanity, every passion and taste, from the most frivolous to the most infernal. In the place of our Author's transatlantic sojourn, as indeed in some of the countries of Europe, Religion is one of the most stimulant and favourite *diversions*. He witnessed all the gayties, shows, frolics, and riotous indulgences of the Easter Season; of which the zest was heightened by the mumery of a more solemn cast on Good Friday.

'On the following day, Good Friday, the decorations of the churches, the dress of the women, and even the manner of both sexes were changed,' (from the flare of gay finery on Holy Thursday;) all was dismal. In the morning I went to the church of the Sacramento, to witness a representation of our Saviour's descent from the Cross. The church was much crowded. An enormous curtain hung from the ceiling, excluding from sight the whole of the principal chapel. An Italian Missionary Friar of the Penha convent, with a long beard, and dressed in a thick dark brown cloth habit, was in the pulpit, and about to commence an extempore sermon. After an exordium of some length, adapted to the day, he cried out, "Behold him;" the curtain immediately dropped, and discovered an enormous cross, with a full-sized wooden image of our Saviour, exceedingly well carved and painted; and around it a number of angels represented by young persons, all finely decked out, and each bearing a large pair of out-stretched wings, made of guaze; a man dressed in a bob-wig, and a pea-green robe, as St. John, and a female kneeling, at the foot of the Cross, as the Magdalen; whose character, as I was informed, seemingly that nothing might be wanting, was not the most pure. The friar continued with much vehemence, and much action, his narrative of the crucifixion: and after some minutes again cried out, "Behold, they take him down;" when four men, habited in imitation of Roman soldiers, stepped forward. The countenances of these persons were in part concealed by black crape. Two of them ascended ladders placed on each side against the Cross, and one took down the board, bearing the letters I. N. R. I. Then was removed the crown of thorns, and a white cloth was put over, and pressed down upon the head; which was soon taken off and shown to the people, stained with the circular mark of the crown in blood. This done, the nails which transfixed the hands, were by degrees knocked out, and this produced a violent beating of breasts among the female part of the congregation. A long white linen bandage was next passed un-

der each arm pit of the image; the nail which secured the feet was removed; the figure was let down very gently, and was carefully wrapped up in a white sheet. All this was done by word of command by the preacher. The sermon was then quickly brought to a conclusion, and we left the church.'

The entrance of a novice into the Order of St. Francis, an occurrence now very uncommon, attracted Mr. K. and a multitude of other persons, to a town at a considerable distance. 'Formerly,' he says, 'of every family at least one member was a friar; but now this is not the custom; children are brought up to trade, to the army, to any thing rather than a monastic life, which is fast losing its reputation. None of the convents are full, and some are nearly without inhabitants.' This is attributed to the scandalous conduct of these gentry. The utmost levity appeared in the behaviour of the fraternity, during the ceremony, and it was followed by 'much eating, much drinking, and much confusion;' appropriately concluded in the evening with hubbub and fire-works. The secular priests are represented as much more respectable, and some of them considerably cultivated. Their great politeness to Mr. K. and the various other English heretics then at Pernambuco, would seem to evince, from what cause soever arising, a degree of liberality for which they would probably be little applauded by their sacerdotal brethren of the mother country and the contiguous kingdom, whom we have enabled to resume their ecclesiastical tyranny.

Our Author seems to have been more pleased with the society of the Brazilians, (the denomination by which he distinguished the white *natives* of the country,) than with any thing he was admitted to see or hear among the Portuguese at Pernambuco. A chief cause was the interest and vivacity with which the ladies take part in the conversation: 'they would allow,' he says, 'of no subject into which they could not enter;' they asserted in every way, their just claims to social rank and consequence; and they did not, as among us, retire after dinner, to leave the gentlemen perfectly free for ribaldry. It is, however, to be acknowledged, that instances are mentioned of festive parties, in which their presence did not restrain the high and rational lords from some excess of potation and noise.

He agrees with other reporters in asserting the superiority of the women of colour to the Brazilian ladies, in the graces of form and in activity of mind. The mixed race, he says, seems more congenial with the climate.

'Their features are often good, and even the colour, which in European climates is disagreeable, appears to appertain to that in

which it more naturally exists; but this bar to European ideas of beauty set aside, finer specimens of the human form cannot be found than among the mulatto females whom I have seen.'

Among some of the families of Brazilian planters removed from the interior to reside at Recife, there are customs brought from the woods, which will soon vanish in the refining process of the town. For instance, at a dinner party at one of their houses, our Author 'was complimented with pieces of meat from the plates of various persons at the table.' The manners and habits of the city population had as yet no settled standard; but they will probably not be long in attaining the enviable subjection to an authoritative mode, by the amalgamation of the varieties, under the ascendancy and prescription, possibly of some deputed models of dignity and grace from the Brazil Court. At present the chief operator of changes is growing wealth, which inspirits the competition in luxuries and splendour,—accompanied, according to our author, with some little increase of mental cultivation, which may throw a slight grace of literature and taste over the heterogeneous elements, while they are mixing and moulding into form,—and by an incipient sense of somewhat more of political consequence, since the acquisition of royalty and a court on the Brazil shores.

He notices two inconveniences which Englishmen had to encounter, at their influx, a few years back, into Pernambuco. The established custom required them to take off the hat in passing a sentinel, or meeting in the streets a military guard; and to fall on their knees on meeting the procession of the Sacrament, carried to dying persons, and so to remain till it went out of sight. The first was intolerable, and was uniformly and firmly refused, as an improper submission, we suppose, for *freemen*; but as to the *religious* affair, the act of idolatrous homage, that was far too trifling a matter to be worth a scruple or an effort of spirit in *Protestants*: 'here Englishmen,' says Mr. K. 'in some degree conformed, in proper deference to the religion of the country.' In plain terms, they repelled the one demand because it was insulting to *themselves*; they acquiesced in the other, because it was *insulting only to God*. Has this unhappy nation, at this late and calamitous period, yet to learn, that the worst of all omens for a people's liberties, is a prevailing contempt of the claims of the Most High? To a religious man deeply sharing in the zeal for freedom and political melioration, it affords but a melancholy presage to see so little hold of religion on the national mind, so little recognition of the Governor of the world, so little perception, in many of the advocates of a righteous cause, that the oppressive evils of which bad men

are the immediate inflictors, are, all the while, the inflictions of his justice; and that something more is required in order to the effectual vindication of rights, than the mere energy of reaction against the instruments of oppression.

When ‘growing wealth’ is mentioned among the circumstances of the settlement, it is not to be understood that the mass of the people partake in any such privilege. No; in striking contrast with the social economy in Europe, there is a large privileged and official class enriched at the expense of the general body. It is not often that so brief a description as the following, will suffice to explain perfectly a state of things in no one respect similar to any thing within the previous knowledge of those who read it.

‘The number of civil and military offices is enormous; inspectors innumerable—colonels without end, devoid of any objects to inspect, without any regiments to command; judges to manage each trifling department, of which all the duties might be done by two or three persons; their salaries are augmented, the people are oppressed, but the state is not benefited.

‘Taxes are laid where they fall heavy on the lower classes, and none are levied where they could well be borne. A tenth is raised in kind upon cattle, poultry, agriculture, and even salt. All the taxes are farmed to the highest bidders, and this among the rest. They are parcelled out in extensive districts, and are contracted for at a reasonable rate, but the contractors again dispose of their shares in small portions; these are again retailed to other persons; and as a profit is obtained by each transfer, the people must be oppressed that these men may satisfy those above them and enrich themselves. The system is in itself bad, but is rendered still heavier by this division of the spoil.’ p. 31.

The account ends with the curious fact, that ‘a tax is paid at Pernambuco, for lighting the streets of Rio de Janeiro, while those of Recife remain in total darkness.’ As to the multitude of persons enriched by offices, it is remarked, that many of them would remain poor enough if they had only the regular and authorized receipts, but that *other ways* are found of making these offices productive. The conduct of the governor, at the time of our author’s visit, is pronounced an honourable exception; he stood unimpeached in every part of his administration; the more is it to be regretted that his power should not have been competent to the punishment and reformation of all the inferior tribe of functionaries.

There is little other manufacture at Recife, than that of gold and silver trinkets, and gold and thread lace. The public institutions are stated to be excellent, though rather few. At the neighbouring city of Olinda, once the more important station, but now in a great degree deserted for Recife, is a college for the education, chiefly, of young ecclesiastics, of

which the professors are praised for ‘knowledge and liberality.’ ‘Free schools are also established in most of the small towns in the country,’ principally for teaching reading, writing, and arithmetic. In both these and the college, the instruction is free of expense to the pupils. ‘It will appear surprising to English persons,’ as Mr. K. justly says, ‘that in a place so large as Recife, there should be no printing-press or bookseller.’ That branch of the polity which respects the punishment of criminals, is represented as emphatically bad, especially in the article of transportation: the small island of Fernando de Noronha, where a crowd of criminals are kept under a military force, for a term of years, or for life, being a den of most flagrant and execrable depravity.—On the whole, our author pronounces a strong condemnation on the government of this portion of the Brazilian states, as administered down to the period of the removal to America of the chief government, and not as yet corrected by that transfer; but he ventures or professes to hope that the measure must have its good effects in due time.

After enjoying for the greatest part of the year, at Recife, the convivialities, the amusements, the pleasant alternation of sea and land breezes, which temper the climate of a spot so near the equator, to the constitution and almost the ease of an Englishman, Mr. K. set off upon a northward journey, into the captaincy of Seara. The progress and incidents are minutely related, indeed a little too much in detail; but many of the particulars are entertaining, and they give a long and disagreeable picture of the physical quality of the country. Large tracts of it are an absolute eternal sand, only not quite so burning and volatile as in the African deserts. Other parts are covered with thickets, completely impervious but by some narrow path, which has been cut through the dense substance with bill-hooks and hatchets. We transcribe the description of one of the vegetable productions which contribute to render them so.

‘The *cipo* is a plant consisting of long and flexible shoots which twist themselves around the trees, and as some of the sprouts which have not yet fixed upon any branch, are moved too and fro by the wind, they catch upon a neighbouring tree, and as the operation continues for many years undisturbed, a kind of net-work is made of irregular form, but difficult to pass through. Several kinds of *cipo* are used as cordage in making fences, and for many other purposes.’

Animal nuisances were furnished in quite the due proportion. With one of them he made an early acquaintance.

‘I laid down in my clothes, but soon started up, finding myself uneasy. The guide saw me, and called out, “O Sir, you are co-

vered with *carapatos*.' I then perceived them, and felt still more their bites. Instantly throwing off part of my clothes, but with the remainder upon me, I ran into the water, and there began to take them off. The *carapato*, or tick, is a small flat insect of a dark brown colour, about the size of four pins heads placed together, it fastens upon the skin, and will in time eat its way into it. It is dangerous to pull it out quickly, when already fixed; for if the head remains, inflammation is not unfrequently the consequence. The point of a heated fork or penknife applied to the insect, when it is too far advanced into the skin to be taken out with the hand, will succeed in loosening it. There is another species of tick of much larger size, and of a lead colour; this is principally troublesome to horses and horned cattle, that are allowed to run loose in lands which have been only partially cleared. I have seen horses that have had such vast numbers upon them, as to have been weakened by the loss of blood which they have occasioned.'

The face of the country is so 'partially cleared,' that in an extensive landscape, seen from the city of Paraiba, through which his route was directed, he says, 'the cultivated specks were so small as to be scarcely perceptible' the general expanse was nearly a continuity of 'evergreen woods.' But this he expressly distinguishes as 'the best kind of Brazilian scenery;' wider spaces of the vast tract denominated *Sertam*, the Desert, presenting the dreary view of a sterile waste; with just here and there, perhaps in the vicinity of a marsh, a spot which has permitted the kinder operations of nature. In the wet season these marshes are pools of very brackish water. Salt was often visible in the muddy places, and was offensively perceptible to the taste in some of the very few springs that were found. After being parched with thirst for a whole day and night, the delight with which the travellers came to the long desired well, was liable to pass off in some such manner as the following:

'The next morning, about nine o'clock, we reached a well, to our great joy, but fortunately for us, the water was so bad that we could not drink much; it was as usual dirty and brackish, but of the first draught I shall never forget the delight;—when I tried a second, I could not take it, the taste was so very nauseous.'

The horses suffered so severely, that several times there was some cause to fear they might sink, and leave their loads and their riders immovable in the desert. The destitution of water was also necessarily that of grass; and they had sometimes to labour through several successive long stages, sustained by only a small quantity of maize from their own loads, and this it required some management to make them eat. In consequence of a very great and extraordinary failure of rain in the preceding winter, if it might be so named, this dreary

region was inhospitable in an unusual degree at the time of our author's adventure. The 'cattle estates,' some large and some small, formed in the more productive spots, were found in great distress; many of the cattle were poor and perishing, and the occupiers in dread of famine. Their residences, instead of meeting our notions of a farm establishment, were wretched cottages, some of them raised for only a temporary abode, and several were found deserted and in ruin. These insulated families, however, were in general friendly to the travellers, and ready to furnish what little accommodations were in their power. But many a day was passed without bringing the party to one of these lodgments against the evening, and the night encampment was made in the open air, without any shelter except a few trees or bushes, or, in a few instances, the side of a rock, from the wind which would sometimes scatter away the fires made of sticks and brushwood. In several of the places, a nightly visit was made by mosquitos, which were invincible by any thing but the thick and pungent smoke of a fire made of the ordure of cattle, which was to be received at the same time by the lungs and eyes of the travellers, in lieu of the myriads of insects. Of serpents or wild beasts there was but little apprehension; though instances had been known of the *jaguar*, the American tiger, presenting himself at a small nightly encampment of travellers. In the thick woodlands there would be need of great precaution.

The description is given, in a variety of little particulars, of the character, condition, habits, and appearance, of the herdsmen of the desert. In better years some of them bring down droves of cattle for sale at Recife, and one or two other points of the coast. But their families, at least the females, pass their whole lives in this total seclusion from the social and civilized world. And their knowledge of even the very existence of such a world, does not extend, with any force of curiosity, beyond the chief towns of the captaincies. The inquiries for news related chiefly to matters at Recife. Englishmen, as heretics, had indeed been heard of; and the name was associated, in the imagination of the men, as well as of the women, with a vague idea of something brutish or monstrous. At one of the stations the travelling attendants having given information to a number of men, who were milking the goats, that an Englishman was in the party, they eagerly came to see the '*bicho*,' that is, 'animal;' and 'their countenances showed much disappointment,' when the 'strange beast' that was pointed out to them, was so much like what they had seen before.

It would appear that they are in a tolerable degree an inoffensive class. As to religion, it may reasonably be wondered and inquired, how they can have any knowledge of the subject at all. Would it ever be surmised there should be in full activity among them, a method of religious ministration analogous to what is as yet a novelty and innovation in England—itinerant preaching?—with the material difference, however, that the itinerants among us do not make money by their journeys, and are not accompanied with a *portable altar*: we are forced to add to these negatives, *episcopal appointment*.

' Certain priests obtain a licence from the bishop of Pernambuco, and travel through these regions with a small altar, constructed for the purpose, of a size to be placed on one side of a pack-saddle; and they have with them all their apparatus for saying mass. Thus with a horse conveying the necessary paraphernalia, and a boy to drive it, who likewise assists in saying mass, and another horse, on which the priest himself rides, and carries his own small portmanteau, these men make in the course of the year between 150 and 200<sup>l</sup>—a large income in Brazil, but hardly earned, if the inconveniences and privations which they must undergo to obtain it are taken into consideration. They stop and erect the altar wherever a sufficient number of persons who are willing to pay for the mass is collected. This will sometimes be said for three or four shillings: but at other times, if a rich man takes a fancy to a priest, or has a fit of extreme devotion upon him, he will give eight or ten *mil reis*, two or three pounds; and it does happen, that one hundred *mil reis* are received for saying a mass, but this is very rare;—at times an ox or a horse, or two or three, are given. These men have their use in the world: if this custom did not exist, all form of worship would be completely out of the reach of the inhabitants of many districts, or at any rate they would not be able to attend more than once or twice in the course of the year; for it must be remembered that there is no church within twenty or thirty leagues of some parts.'

No thanks, it seems, to the judicature in this wilderness, if its forlorn inhabitants do not lose all discernment of right and wrong.

' The administration of justice in the Sertam is generally spoken of as most wretchedly bad: every crime obtains impunity by the payment of a sum of money. An innocent person is sometimes punished through the interest of a great man, whom he may have offended, and the murderer escapes who has the good fortune to be under the protection of a powerful patron. This proceeds still more from the feudal state of the country than from the corruption of the magistrates, who might often be inclined to do their duty, and yet be aware that their exertions would be of no avail, and would possibly prove fatal to themselves.'

Our author, however, distinguishes several governors, as men of justice and spirit, particularly Amaro Joaquim, who had recently been governor of Paraiba, whom Mr. K. saw at Recife, and who died of a fever on his passage to another captaincy to which he had been removed. There is a pleasant story of one of the acts of his government.

'A man of the name of Nogueira, the son of a black or mulatto woman, and one of the first men in the captaincy, had made himself much dreaded by his outrageous proceedings; he had carried from their parents' houses the daughters of some persons of respectability in the captaincy, murdering the friends and relatives who opposed his entrance. The man was at last taken; Amaro Joaquim would have had him executed; but he found this was not to be done, from the interest which the family made for him, and therefore ordered him to be flogged. Nogueira said, that being half a *fidalgo* (a nobleman) this mode of punishment could not be practised on him. The governor then ordered that he should be flogged on only one side of his body, that his *fidalgo* side might not suffer, desiring Nogueira to say which was his *fidalgo* side. He was accordingly punished in this manner, and after remaining some time in prison, was sent to Angola for life.'

There is a considerable length of rather interesting description of the character and habits of the descendants of the aborigines, the Indians, with a great number of whom Mr. K. has conversed. They appear wonderfully inferior in many points to some of the tribes of the northern part of the Continent; but they are beyond comparison less inconvenient and formidable as neighbours. They are not brave, but neither are they ferocious or revengeful. They have little respect for the principles and regulations of property; but they violate them rather in the humble way of pilfering than in the bolder style of robbery. They can be treacherous, but it seems rather from capricious fickle lightness of disposition, than from deep design or malignant feeling. They are little capable of affection, or any lively interest for any one's welfare, even that of their immediate relatives; but they seldom wish to do any body any harm. They are unambitious and indolent, but capable of a wonderful perseverance of physical exertion, when they have occasion to travel, or are employed in hunting and fishing. They have the same instinct, or faculty of observation, which enables the northern Indians to take a direct course through the wilderness, to the remotest places, and to descry the traces of men or beasts, where other men would be utterly baffled. They have also the same invincible love of freedom: it is absolutely impossible, Mr. K. says, to reduce them to a systematic slavery:

they do not *fight* for independence, but they are continually endeavouring to escape from situations in which it is denied them. They have many disgusting habits; and have a voracious appetite, with little nicety of choice. Some of them are believed to practise their ancient pagan rites in secret; but in general they have accepted the sort of christianity that the lords of the country have conferred upon them. Those lords treat them with little equity, and much contempt.

The narrative of the return, with Indian guides, to Pernambuco, is more brief, and contains a number of notices and incidents which are entertaining, without being particularly striking. The rainy season overtook the traveller, and he suffered from an attack of the ague, and considerable inconveniences from temporary torrents and inundations; but these, he says, were far less intimidating grievances than the former dread of perishing for want of water. It was pleasing to observe, in the sudden effect of the rain, the wonderfully sensitive state of a soil, in all appearance utterly burnt up.

'The rapidity of vegetation in Brazil is truly astonishing. Rain in the evening upon good soil will by sun-rise have given a greenish tinge to the earth, which is increased, if the rain continues on the second day, to sprouts of grass of an inch in length, and these on the third day are sufficiently long to be picked up by the half-starved cattle.'

The ordinary course of seasons brings pretty constant rain from May or June to the end of August; but there are not many days of absolutely incessant rain. From August or September there is not usually any rain till the beginning of the year, when it is expected, for a continuance of only two or three weeks.

A more comprehensive description is given, in this part of the work, of the *Sertanejos*, as the inhabitants of the *Sertão* or desert are denominated. Some of these are the proprietors of the cattle-estates on which they reside; but the greater number are *Vaqueiros* or cow-herds, who manage the estates for rich owners who reside in the towns upon the coast, and are at the same time sugar-planters, denominated *Senhores de Engenho*. Between the large share of the animal stock and produce assigned by regulation to these resident-managers, and the unavoidable indefiniteness of the whole account of the numbers, the situation is a very advantageous one; but it requires 'considerable courage, and great bodily strength and activity;' the necessity for which is partly shown in a very amusing description of the half-yearly col-

lecting of the cattle, some of them not unfrequently from a distance of twenty leagues from the residence. There is a curious account of the modes of mastering with impunity the violence and wildness of the cows and oxen, the way of breaking in horses, the distinctions of quality in horses, and the sort of economy preserved by each separate party or 'lot' of these animals. The divisions of property in the Sertam, will require ages to bring them to any approach to precision. The size of the *fazenda* is estimated by a mere computation of leagues, or, in some instances, by the yearly number of hundreds of calves. 'Few persons take the trouble of making themselves acquainted with the exact extent of their own property; and perhaps could not ascertain it if they made the attempt.'

The *Sertanejos* are of various colours, from what would be white but for the heat of the climate, down through the mulatto mixtures and gradations. Being 'courageous, generous, sincere, and hospitable,' they would, our author says, be a very good sort of people, were it not for their wretched condition with respect to government, their scanty portion of which is of such a quality, as to make it doubtful which would be the greater evil—the mischief it would do by a more effectual interference, or the crimes which, in its non-interference, are committed by a people abandoned to their own passions and their own means in maintaining and avenging their rights against one another. Their ignorance is extreme, 'few of them possessing even the commonest rudiments of knowledge.' Their religion is confined to a few ceremonies, relics, and charms; some of which last are the resource of persons bitten by serpents; and as all serpents are believed by these people to be venomous, while in fact many of them are not, there will be plenty of reputed proofs of the efficacy of the charm. There was an amusing instance of fantastic credulity, at a house where the travellers were answered by a man from within the door, but who did not open it, nor in any way venture to look out.

'This I thought strange, and began to suppose he might be afflicted with some contagious disorder, and had been forsaken by his friends, or rather, that his family had been advised to remove to some neighbouring cottage. But the guide explained, that the man had been bitten by a snake, and that the bite of this species only became fatal, if the man who had received it saw any female animal, and particularly a woman, for thirty days after the misfortune.' p. 160.

A voyage from Pernambuco to Maranham, a position on the coast still further to the north-west than Seara, was made within sight of land nearly all the way. The account of the people there, includes some anecdotes of slaves, one of which we transcribe.

'I heard of a mulatto slave, who ran away from his master, and in the course of years had become a wealthy man, by the purchase of lands which were overrun with cattle. He had, on one occasion, collected in pens great numbers of oxen, which he was arranging with his herdsmen to despatch to different parts for sale, when a stranger, who came quite alone, made his appearance, and rode up and spoke to him, saying that he wished to have some private conversation with him. After a little while they retired together, and when they were alone, the owner of the estate said, "I thank you for not mentioning the connexion between us, while my people were present." It was his master, who had fallen into distressed circumstances, and had now made this visit, in hopes of obtaining some trifle from him. He said that he should be grateful for any thing his slave chose to give him. To reclaim him, he well knew, was out of the question; he was in the man's power, who might order him to be assassinated immediately. The slave gave his master several hundred oxen, and directed some of his men to accompany him with them to a market, giving out among his herdsmen that he had thus paid a debt of old standing, for which he had only now been called upon. A man who could act in this manner, well deserved the freedom which he had resolved to obtain.'

From St. Luiz, the port of the island of Maranham, where the blessings of despotism, slavery, and bigotry are enjoyed in a high degree, Mr. K. had a fancy to take a little trip to see his English friends, and landed at Falmouth, in May, 1811. In the last week of that same year he was again in the full gayeties of Pernambuco; where a period of less than twelve months had sufficed to produce a very visible alteration in the style of dress, and even in the manners of the people, in the exterior and interior appearance of the houses, in the sedan chairs, and in the equipment of the horses. The impulse of this change is represented as mainly given by a few families newly imported from Lisbon and England. It seems a pity that a people so easily rendered dissatisfied with themselves and their customs, should not have had the good fortune to obtain from abroad exemplars that would have prompted and attracted them to changes in much more important matters. How many diversities of the cut of their clothes, and the colour of their house fronts, and the shape of their furniture, and the regulations of their

promenading, will they be manœuvred through, at the caprice of the adventitious dictators of fashion, before any detachment of the European community will disturb them into innovation, by examples of judicious education, extensive and useful reading, genuine religion, and an adjustment of manners at once liberal and systematically moral?

Our author amused himself with an excursion among the sugar plantations, with a particular attention to the economy of slave employment, and observant also of the characters and habits of the proprietors, and the free labourers. He was struck with the contrast between the almost solitary appearance of the country, on a general view, and the large assemblages of people drawn together at the churches at particular times, and at the planters' residences on occasions of sport and festivity. Frolic and riot are quite as necessary against the tedium of existence to the superior people, as to the meaner tribe; and on some of the days before Ash-Wednesday, Mr. K. and an accompanying friend were regaled quite to satiety, and something further, with a sport called *intrudo*. Before a meal is well ended, the partakers, the family (that is, the men of it), guests, and all, fall to pelting and bespattering one another with the eatables remaining on the table, commonly no small quantity. At one house, even the blackened pots and pans from 'the kitchen were introduced,' for the purpose of a mutual besmearing of the gentlefolks' faces. Here, even the ladies were induced to join in the war, and the slaves were delighted to be admitted to a share. It is all taken in perfect good humour; or the utmost contempt assails any one that becomes angry and resentful.

Among the various plantations the Author visited, he distinguishes one, but without giving either local or personal name, as horribly infamous for cruelties perpetrated on the slaves, with 'a systematic, continued, wanton enormity.'

'The estate was inherited by the person in question, with sixty good slaves upon it; fifteen years have elapsed since that time to the period of which I speak, and there were then remaining only four or five individuals who were able to work. Some have fled and have escaped; others have died, God knows how; and others again have committed suicide in sight of their master's residence.'

Mr. K. says he did not hear any other of the planters charged with a conduct so systematic and atrocious:—might it not be expected then, that the miscreant in question would often have to encounter the most unequivocal and intentional

signs of detestation from what is accounted the respectable part of the society of the country? No such thing:

'The conduct of the owner toward his slaves is often spoken of with abhorrence, but yet he is visited and treated with the same respect which is paid to an individual of unblemished character.'

So base a betrayer can politeness be to the cause of justice! Yet it perhaps never occurs to the thoughts of these civil gentry, that they will stand accountable, and will be joined in retribution, for so much of the wickedness as the honest manifestation of their opinion might have prevented. And our Author's delicacy, too, in so carefully suppressing the name,—was it in return for being 'regaled with pine-apples and oranges,' at the plantation? If so, we wish that, however hot the day might have been, he had declined swallowing so sweet a bribe to protect the entertainer's name from infamy by concealing it.

This tour among the plantations, was preparatory to our Author's becoming, in connexion with a friend, a sugar-planter himself, by renting, in 1812, an estate called Jaguaripe, with the slaves, cattle, and other requisites upon it, four leagues from Recife, and one league from the coast. He relinquished it, however, towards the end of the following year, and became a resident and co-planter on the Island of Itamaraca, where he remained till some time in the year 1815, when he abandoned, for reasons not assigned, the planter's vocation, to which he confesses he was become partial, and returned, perhaps finally, to Europe: perhaps finally, for he seems willing to contemplate a possibility that he may be destined to accomplish what he earnestly and vainly wished while in South America, a journey of discovery quite across that Continent.

The proceedings and incidents in the course of these planting speculations, furnish a considerably lively and diversified narration, which is followed, toward the close of the volume, by a large assemblage of descriptions and observations of a more general kind. The natural appearance of the country, so different from the *Sertam* or desert, is largely displayed, with all its diversity of landscape, vegetation, and soil. The description of the whole economy of the plantations, is enlivened by a very great number of anecdotes and little personal adventures, for the most part illustrative of the state of the country, and the characters and habits of its heterogeneous population. The distinctive characteristics of each class and race, are marked; their moral effect on one another is rendered apparent; and the fantastic spectacle formed by the

jumbling of so many sorts of human beings together, is brought out in a striking light.

The picture of a planter's life, is perhaps less repulsive in our Author's work, than in any former representation given on respectable authority; and it is so because he constrains us to believe, even though we should make some allowance for the circumstance of his being a native of Portugal, that the great majority of the Brazilian planters, have a much less oppressive and cruel system of management, than that which has loaded with so much infamy the slave-owners of the Dutch, Spanish, and English colonies. He deliberately and constantly declares that, in the tracts of Pernambuco, at least the condition of the slaves is not generally severe, and that any savage infliction, or systematic intolerable oppression, would render a planter infamous even among his class, notwithstanding the polite attention with which, as in the instance above quoted, he might be hypocritically treated among them.

Nevertheless, Mr. K. is a most decided enemy to the whole of the slave system; and this, not because it would be disgraceful or unfashionable to be its advocate, but because, together with a conviction of its intrinsic iniquity, he perceived, in observation and experiment, the many practicable evils inseparable from its operation. These he has pointed out; and at the same time he has shown the advantages attending the employment of freemen;—advantages on the mere trade account, besides all the satisfactions of a moral kind. Happily, the various rules and modes of manumission, have rendered this class of negroes and mulattoes sufficiently numerous for an extensive diffusion of the practical evidence of the benefits of freedom.

An extended account is given of the methods of cultivation, with the annoyances and disasters to which it is liable, and of the process of preparing the sugar. Mr. K. judges the Brazilian planters to be quite a century behind those of the West Indies, or, to use his phrase, ‘the Columbian Islands,’ in all the mechanical expedients for saving the labour of men and cattle. He anticipates that this incuriousness or dread of innovation cannot continue among them very long; but thus far, nothing can exceed the stupidity with which they have retained all the clumsy, tedious, toilsome and unthrifty methods of their forefathers. A gross ignorance, indeed, on all subjects beyond the most contracted routine of accustomed practice, is quite general among the inferior orders of planters. Some of the richest class are

beginning to come in contact, in their visits or residence at Recife, with the knowledge of Europeans.

With respect to religion, if it may be so called, all classes seem nearly alike the slaves (or rather the dupes, for, as a burden, it is tolerably light upon their consciences) of the most ridiculous superstitions, of which a great number of curious illustrative instances are related.

The chief fault of this work is prolixity, occasioned by a uniform minuteness of detail. On some subjects great minuteness may be essential to the requisite precision; but in many of the matters of a book of travels, the writer should make an earnest effort to put himself in the reader's place, and subject his work to a severe process of selection and exclusion. The work is, nevertheless, of very considerable merit, for the information it brings, and for the principles of justice and humanity it serves to confirm.

The eight coloured plates, combining costume with scenery, are well executed, and contribute materially to the purpose of information.

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**ART. V.—*The South American, a Metrical Tale, in four Cantos; with historical Notes and other Poems.*** By James Scott Walker. Edinburgh and London. 1816. pp. 152.

**M**R. WALKER, we collect from his book, has resided a considerable time in the northern parts of South America; and, instead of giving us the substance of what he must have seen and heard in the country, he has bethought him of writing a *Metrical Tale* about General Bolivar and one Laura, daughter of one Montillo, a Spanish patriot. This would have done, some time in the twentieth century; but, at this particular time,—when our interest in the fresh realities of the subject, is of a more business and bosom kind, than can possibly be created by a mere fiction, and when, moreover, we are all looking, with anxious expectancy, for information about the only belligerent part of the globe, which lays claim to civilization, and which is very imperfectly known,—it would be quite hazardous in any writer to think of finding readers for an epic poem about the matter, and extremely provoking, in one like Mr. Walker, who, from having been a resident in the country, might have furnished us with a body of substantial facts concerning it. Nor has Mr. Walker redeemed this capital error by any ability of execution. He has strung four *Cantos* of very common-place verse upon a very common-place story; and there is nothing to keep one's attention at all awake, except the fear of loosing the zest of the

Notes by neglecting the perusal of the poetry. The Notes, indeed, are the only things about the book, which induce us to notice it; and, although the author was (of course) led to publish the rhymes, by ‘the favourable opinion of his friends,’ we think his friends would have acted more dutifully by advising him to put them into the fire. Some stanzas, however, are worth reading; and, in order to give them the fairest chance of pleasing, we shall sketch a brief outline of the story.

The Valencians have a great carousal, after General Bolívar’s success at Victoria, in 1811;—and, among the rest, the Indians have their music and their sport on Lake Valencia.

‘To mellow flute, the boatman timed his oar—  
That Indian flute, whose wildest measure fell  
In lengthened cadence, lingering round the shore:  
Valencia’s halls rung with the merry swell  
Of minstrel harp, and drum, and horn, and shell;  
Joined in the dance, youths, maids and matrons old,  
And ever and anon, their mirth to tell,  
In louder voice—the cannon’s thunder rolled—

And the bold warlike shout, the wakeful echos told.’

‘That Indian flute’ is thus described in a note:—

‘This instrument is in the form of a rough walking-stick, having a quill inserted at one end, and holes, almost at the extremity, at the other. Two of them are generally played together; the first having five holes, on which the Indian performer plays with both hands; the other has three, and is touched with one hand only; while in the other hand a cocoa-nut shell, filled with small pebbles, is shaken agreeably to the tune. The soft melody of the tone of the Indian flute, and the wild simplicity of the music of these children of nature, are not perhaps equalled by any single instrument, or European musician: their airs resemble the more plaintive melodies of the Highlands of Scotland.’

Neither this ‘Indian flute,’ however, nor these ‘maids and matrons old,’ could detain Bolívar; who, though it was already sun-set, was resolved on travelling, that very night, no less than twenty-eight miles to Caracas. The moon was considerably up before he arrived at the top of the mountain which overhangs the city; where we shall leave him, till we have given Mr. Walker’s description of it.

‘The city of San Juan de Leon, or Caracas, is about four miles in a direct line from the sea, but the great height of the mountain between it and La Guayra, the haven, renders it necessary to travel sixteen miles before reaching it. The road winds from the port in a serpentine direction, to counteract the steepness, after leaving on the sea-shore the handsome village of Maycatia: it is,

in some places on the face of the mountain, so steep, that, unless the traveller be well mounted, he is frequently obliged to walk. There is a diversity of hill and dale even to the top: the hollows, along which meander innumerable rivulets, are covered with impenetrable forests of gigantic trees, veiled in a rich and variegated green, and here and there relieved by fields of maize or plantations of coffee. The mountain (called the Silla, or Saddle of Caracas) is said to be 11,000 feet above the level of the sea; from a site near its summit, the ships in La Guayra appear no bigger than boats on a smooth lake. The noise of distant water-falls, the hum of innumerable insects, and the music of the choristers, delight the ear; while the immense extent of view which the eye can at once embrace, renders the whole truly sublime.

'At a short distance from the top of the Silla, on the south side, the traveller's attention is arrested by a view of the city and the whole valley, surrounded by an amphitheatre of hills, and variegated by villas and country-seats, watered by innumerable rivulets, discharging themselves into a river that winds along the meadows.

'The streets of Caracas intersect each other at right angles; and the houses of the genteeler part of the community are elegant, when compared with those of the other provincial towns. The entrance is a wide passage from the centre of the front, terminating in an open square with piazzas and galleries above. The climate is much more agreeable than might be expected from its latitude, which may be owing to its great height (about 5000 feet above the level of the sea), added to the vapours that often hang on the adjacent mountains, cooling the air, and absorbing the rays of the sun. The evenings are generally of that placid mildness which is invariably grateful to an European, and by the natives is considered as inclining to cold.

'The public buildings of note are the churches. The cathedral, in which the archbishop officiates, is a brick edifice; it is supported inside by huge pillars, and contains a superb altar, and some decayed paintings and rich ornaments, that bespeak its former grandeur. The others are smaller, but more elegant in outward appearance: the spires and towers are provided with a number of bells, that are almost constantly tolling. There are likewise nunneries, and a college; also barracks, built in modern style.

'The females of Caracas are lively *gaditanas*; they are generally of low stature, but their features are small and comely; and though few of them are possessed of a florid complexion, that deficiency is compensated by a mild pale delicacy, equally agreeable. I allude to the white natives only, and those slightly coloured, who, I should suppose, constitute about four-fifths of the whole population. Though education among them has hitherto been retarded by the policy of the priests, yet they evince consi-

derable taste for the fine arts, particularly music, of which they are passionately fond. The most common instrument is the guitar, which is played by both sexes; but the pianoforte, which has been lately introduced, will probably supplant it: the harp is also a favourite instrument, as is the German flute. Painting, though not so much known, is nevertheless greatly esteemed.

‘Caracas contains 45000 inhabitants. The surrounding country produces cocoa in abundance, equal to that of Guatimala,—indigo, cotton, coffee, sugar, dyewoods, cochineal, platina, copper, and other metals; excellent timber for ship-building; and woods for cabinet work, of greater variety and beauty than are to be found, perhaps, in any other country; to which may be added, as articles of commerce, an innumerable quantity of medicinal herbs and barks, viz. quinquina, or Peruvian, lignum vitæ, sarsaparilla, sassafras, various aromatic gums, &c. &c. Were the new government once firmly established, these would be produced in double their present quantity: and the consumption of European dry goods would consequently increase also. The best harbour in Venezuela is Puerto Cabello, sixty-six miles due west of La Guayra: it is completely land-locked, and might contain an immense navy. In fine, if Caracas could maintain itself independent of the mother country,—its commercial advantages,—the influx of foreigners,—the disposition for improvement, already so strongly evinced by the natives,—and the refinement that would arise from an intercourse with Europeans, would, in a few years, render it one of the most enlightened and polished cities in the western hemisphere. It is planted in a country which no Englishman can behold, without an emotion of admiration, nor learn the despotism under which it has so long laboured, without a sigh of regret. Long.  $57^{\circ} 4'$  W. lat.  $10^{\circ} 20'$  N.’

We return to our hero.

‘Where Guayra murmuring pours his crystal stream,  
Or roars with frequent fall o’er rocky steep,  
His tract now lay;—there scarce the slumbering beam,  
Could find an entrance through the foliage deep;—  
The mountain boar, upstarting from his sleep,  
Rush’d thro’ the withered leaves with rustling tread;—  
And those wild fowls, that, when reposing keep  
A watchful sentinel, by signal led,

In distant clamorous flight, sought to dispel their dread.’

These lines are not very bad; but they were introduced chiefly for the sake of the note. .

‘The river which winds past Caracas generally goes by this name, although it discharges itself far to the eastward of the town of La Guayra; which is fortified, and lies at the bottom of that lofty mountain, the Saddle of Caracas, and is properly the port of that city. The greater part of the houses of La Guayra, as well as those of the whole province, are built entirely with mud,

or with a proportion only of lime and stone. The first is most common; and, as as they are all plastered, ornamented with fanciful mouldings, and white-washed or painted, the exterior has a pleasing and lively effect. To a stranger, it would appear that a decent habitation could not be formed of such rude materials; but as the walls are cast in frame-work, they are, with the greatest facility, moulded into whatever shape is required, and in course of time acquire the consistency of stone. In Guayra, there are no buildings worthy of remark, except the fortifications that inclose it towards the sea, sweeping round the town in the form of a crescent. There are also some fine commanding forts, placed at different heights on the mountain behind it, which must have cost much labour and expense. From one of these the vessels are signaled by flags, as soon as they appear, a custom general throughout the West Indies.

'The streets of La Guayra are narrow and crooked, and the fortifications, near which is the main street, being above twenty feet in height, almost entirely exclude the sea-breeze, which, together with the frequency of calms, renders the climate generally sultry. It may be owing to the great height of the land that the trade wind is not so regular here as in the West Indian Islands; in the latter it generally rises with the sun from the E. N. E. or thereabouts, increases till mid-day, and dies away toward evening: the pleasing effects of this cooling breeze are inestimable, and the reader will observe that it is frequently alluded to in the text. Notwithstanding this privation, few towns in the colonies are more healthy than La Guayra; there being no stagnant waters nor marshy grounds in the vicinity. The river that waters it takes its rise near the top of the mountain, and after forming alternately a number of cascades and pools, finely overshadowed by wood, runs through the town, and discharges itself into the sea from under the batteries. Though its course cannot be above five miles, during the rainy season, it once (from the bridge through the walls being too small), overflowed the whole town to the height of the fortifications, and did much damage, hurling down on the houses huge stones and rocks: one of the latter is still to be seen, half hidden in the side of the church; there is carved on it "*Hasta aqui me truxo el Rio*"'

We have got a little before our story; for we ought to have mentioned, that Bolivar's Laura lived in Caracas. He enters the city; and straightway claims her of Montillo; who, it seems, is a prudent old father, and tells him, he can't have her till the wars are over.

'Wait but one year, if then in liberty  
Caracas' valley reigns, my daughter shall be free.'

Which we take to be rather an equivocal promise; but our hero was obliged to be satisfied with it. He was in Caracas, at the time of the dreadful earthquake, which levelled

it to the ground—and of which Mr. Walker, who was there also, has given, in his note, a very interesting description. Bolivar had here an opportunity of establishing one more claim to Montillo's daughter; for, when the old man had given her up for lost, our *Aeneas* bore her from the ruins and laid ‘the lovely burden’ at his feet. The generality of survivors took refuge in the open fields; but ‘young Bolivar’ led Montillo into the woods.

‘And lighted by the fire-fly’s fitful gleam,  
Strewed with *dry* leaves the *dew-bespangled* bed,  
And bade the embers glow to scare the panther’s tread.’

And thus endeth the first Canto. The second opens with some pretty good lines; which we shall extract.

‘Sweet rose the cheering sun, with lively red,  
Tinging the forest tops and mountain’s side:  
The Indian started from his mossy bed,  
And throwing o’er his limbs the panther’s hide,  
On Oronooko’s stream his paddle plied;  
To throw the dart, or twang the bow, he knew,  
For these his every luxury supplied:  
Joyful he rose, his labours to pursue,  
Ere yet the ardent sun drank up the rosy dew.’

‘Roused by the glittering beams, the youthful stag,  
The pearly moisture from his antlers shook,  
Free as the wind, to climb the jutting crag,  
Or paw the plain, or court the cooling brook.  
The feathered tribe their little nests forsook,  
And carolled loud from rock, and vale, and steep;  
But, from that morn, that seemed so gay to look,  
Could Venezuela’s sons no transport reap,  
And matrons rose to sigh, and maidens rose to weep.

‘Yet paused not thus, in unavailing woe,  
The emboldened youth: with massy bar and spade,  
Ere yet the mid-day beams began to glow,  
They from the ruins digged the silent dead,  
And the last duty to their relics paid;  
So numberless they were, that, in one tomb,  
The poor, the rich, the weak, the strong, were laid;  
Memorial sad! prophetic of that doom,  
Which yet shall wrap the world in everlasting gloom!’

The Caracians were obliged to build themselves temporary dwellings, out of the bamboo-cane. And we have the following note on the subject.

‘In many parts of Terra Firma, the bamboo cane is used for planking the sides of houses.—It is first split open, and the joints which run through the cane scooped out; it is then notched inside

with an axe, and laid open; a good cane will thus become a plank a foot wide. They are placed perpendicularly, and have a beautiful smooth appearance, excelling the hardest woods in durability, and the finest varnish in lustre.'

A Spanish armament appears on the coast of Venezuela. Bolivar collects some followers; meets the invaders; fights desperately; but is taken prisoner; and ordered into the dungeon of La Guayra. When his conductors reached the top of the mountain which overhangs the place, we have the following very good description of the scene.

'Now, on the mountain's top, beneath them lay  
The battlements of Guayra, snowy white;  
Each distant bark, at anchor in the bay,  
Appeared no bigger than a shallop light  
On an extended lake, unmoved and bright:  
There oft the curious traveller stays his pace,  
When winding by some precipice's height;  
Tries thro' the clouds below the scene to trace,  
And, giddy, deems he sees eternity's dim space.'

What becomes of Montillo, at this eventful crisis, we have not been able to discover: but Laura sets out for La Guayra in the night, 'stumbling at each step,' and feeling pretty *streaked*, as one might suppose. A watch-fire struck her sight.

'She gazed: an aged Indian forward pressed,  
And frankly held his hand the way to guide;  
Wooing her in such phrase to be his guest,  
No longer might the proffer be denied.  
Each crossing branch he careful pushed aside,  
And reached, by wily turns, his small retreat,  
Near to the margin of the crested tide:  
The matron and her daughter rose to meet,  
And hailed the stranger maid in guileless accents sweet.'

Domingo (that was the Indian's name) took every pains to dispel Laura's fears; while his wife and daughter were preparing to allay her appetite.

'—Soon the Indian's humble board  
With homely bread and fragrant fruits was filled,  
For her, the ample calabash was stored,  
With the Palmetto's vinous essence mild.'

Of which 'vinous essence mild,' we have the following account.

'From a species of palm-tree, the Indians extract a liquor resembling whey in colour, and of a pleasing acid flavour: it is procured by felling the tree, and making an incision in the soft part of the stem where the branches unite. Next day, the aperture will be found full of the juice, When distilled, it is said to produce a

liquor as ardent as spirits of wine; in its primitive state it resembles spruce beer. The Indians, particularly those of the coast of Santa Martha, also use an intoxicating beverage, produced by a fermentation of ripe plantains, bananas, and other fruits.'

The parties tell their mutual histories, and go to rest; which closes the second Canto. In the beginning of the third, we ascertain that Montillo is in 'durance fell,' as well as Bolivar. Domingo resolves to attempt the rescue of them both; and, taking Laura into his canoe, he sets off for La Guayra. Well had 'the generous dame' provided Laura with 'a little store of ripened fruit;' for Domingo had a hard time of it; and, before he came within sight of Cape Blanco, he was obliged to 'bend a reef in his sail, and 'paddle' for the shore. At length, however, he arrived at La Guayra; and, by some means or other, obtained an interview with Montillo; who told him, that a 'gentle shock' of an earthquake had kindly rent the walls of his prison, and that if he (Domingo) would be not far off in the evening, Bolivar and himself would plunge through the crevice into the sea, and swim to his canoe. This plan was executed; and all the four got safe to Domingo's hut. Here our hero laid a plan for the delivery of his countrymen; and told Domingo, that, if he would lend him his canoe, he would go to St. Martha and Carthagena; rouse up his followers; and carry all before him. There was some debate on the proposal; but Bolivar was fixed; and he accordingly set out upon the expedition. He was 'seven days' on the voyage; though, we are told, he had a fair wind. He passed the curious river of Magdalena; of which Mr. Walker gives us the following account.

'The river Magdalena, by which the products of the ancient city and kingdom of Santa Fe de Bagota find their way to the ocean, takes its rise at the foot of the Andes, and is navigable for small vessels (called bongos) for upwards of a thousand miles. The town of Baranquilla is situated on its banks, as also Mompos, famous for its manufactures in gold. These towns communicate with Carthagena by means of a canal. The confluence of the Magdalena with the sea, is observed by seamen many miles from the land, by its milky appearance: a stranger would naturally suppose his ship had come upon a sand-bank. Large logs of wood, and trees in full verdure, are frequently picked up by vessels pursuing that tract.'

On the word *Popa* we have a note, which is worth extracting.

'The Popa (so called from its resemblance on one side to a vessel's poop), is a hill rising from a flat ground, about a mile and a half from Carthagena. There is a monastery on the top of it,

which forms an excellent land-mark. Another hill, to the westward of the town, is called, in opposition, the *Proa*, or Prow.'

Bolivar collects a band of five thousand followers; takes up his march for Caracas; defeats the royalists—or rather they lay down their arms without striking a blow: and thus endeth the third Canto. The next thing was, to visit the 'inmates of Domingo's bower.' The hero issued from the streets in the night; and, though he had a variety of bad road to get over, he at length mounted to the top of the Saddle. Emerging from the wood—he

' Fixed a fond look upon the view serene:  
Here the dark ruins of Caracas stood,  
With rising domes, and tufted trees between;  
Beyond, the Guayra's stream alternate seen,  
Wandered along the vale in playful maze,  
And sought in distant shades its waves to screen;  
Next, softly blended by the silver rays,  
The blue majestic hills peeped from the dusky haze.'

Here the 'guardian angel' of 'Columbia's land' descends from the clouds; gives him a variety of council; advises him to court the alliance of the English; and leaves the chief 'gazing' 'till her form is lost in fair ethereal blue.'

' But now the dawn appeared with lingering pace,  
And, from the east, the beams of rising day  
Began, from wood and dell, the shades to chase,  
Darting, in every nook, the enlivening ray,  
And burnishing the ocean's watery way:  
The panther in his cave no longer slept,  
But watched, in thicket hid, his reckless prey;  
The clamorous Monas up the branches crept,  
And oft, from tree to tree, in restless gambol leaped.'

Whereby hangs a tale, which our readers will be amused to read.

' The ring-tailed monkey, called in Spanish mona (which I have used, as better suited to verse), is common to South America. The monkies are very artful and mischievous; and if annoyed, frequently attack their disturber from the tops of trees, with nuts and stones. The negroes in the colonies have a ludicrous method of catching them; which is by putting a lump of sugar into the hole at the end of an empty cocoa-nut shell, laying it on the ground, and strewing some sugar round it. The monkey, whose curiosity prompts him to search the spot you have left, no sooner tastes the sweet repast, than, in search of more, he puts his paw into the shell, and grasps the sugar; but as the hole is just large enough to admit his withdrawing it empty, he is so tenacious of his prize, that he is easily surprised—the large shell fixed at his paw.'

The last chapter of this eventful history is soon told. Bolivar finds Domingo's hut; is presented with the hand of Laura; and the happy couple, along with Montillo, returned to Caracas—where, we are to suppose, they yet live in peace!

'With peace, with plenty, and with freedom blest,  
All Venezuela smiled;—I may not tell the rest.'

From these specimens it is quite manifest, we think, that Mr. Walker would have done well to have confined himself entirely to the composition of 'historical notes,' leaving the 'metrical tales' to be told by the poetasters of nineteen hundred. What we need, at present, is, a detail of facts respecting the physical and moral condition of South America;—such a detail as might enable us to form something like a correct idea of what will be the end of the revolutions which are every day taking place there. Our author has, indeed, given us a speculation on the subject, in the Preface to his Tale; but he has said nothing that we have not heard very often before. An 'infinite deal of nonsense' has been uttered by others, too, in the same strain; and, so far as such things can gratify the speakers, we certainly have no objection to them: but it behoves those who rightly estimate the importance of South America, and who have a proper care of their own reputation, to possess themselves of the facts before they venture to reason, and to yield, as little as possible, to any arguments derived from analogy. It is the fashion in this country, to laud all attempts at throwing off colonial bondage, because we were ourselves so successful in the undertaking; though we venture to say, that, particularly with respect to the revolutions in South America, there never was a more shallow reason for thinking so; and we hope too, that, before long, we shall have an opportunity of proving our assertion somewhat in detail.

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ART. VI.—*An Original Letter of Columbus; giving an Account of his first Voyage.* From the tenth Article in the LIVth Number of the Edinburgh Review.

WE shall close this article with calling the reader's attention to a document of great curiosity in the history of the illustrious man of whose origin we have been discoursing, and which nevertheless appears to have been almost entirely overlooked by the celebrated authors who have treated of his story. It is a letter written by him upon his return from the first voyage in which he discovered the New World. He landed, as is well known, at Lisbon, and re-

mained there a few days before sailing for Palos, from whence he had departed. During that short residence, afraid, it should seem, lest some accident of the sea might prevent him from reaching the seat of the Spanish government, as indeed he had suffered severely from two recent storms, which had placed in the utmost hazard his return to Europe, he addressed to one Don Raphael Sanzio, of the King's Council, a concise but very interesting narrative of his prodigious discoveries. Of the original Spanish letter, we have not been able to learn any thing; nor do we believe that it ever was published; for Munoz, who mentions his having seen it, says, that it was in the 'Manuscript History of Bernaldez, who had preserved it almost entire.' That this precious document should never have been printed, will excite the less surprise, when we recollect that there is great reason to doubt whether the original work of Don Ferdinand itself was ever published. This at least is certain, that for ages it has only been known through the Italian translation; that no older edition of any kind is extant; and that no author ever has mentioned the original Spanish.

Of the letter of Columbus, then, we have only a Latin translation, which is extremely rare, as it should seem, from the historians having made hardly any mention of it. Even Dr. Robertson, the most diligent of mankind, appears to have been ignorant of its existence. He makes not the slightest allusion to it; nor does Don Ferdinand, in his work already so often referred to. There is a copy of this letter in the Brera library at Milan, printed in 1493, and the only one extant of that most ancient edition. We have seen three other copies in the French King's library at Paris, and compared them with this. The one most nearly resembling it, forms part of a work published in 1494, and entitled, '*Caroli Verardi in laudem Serenissimi Fernandi Hisp. Reg. &c. &c. Obsidio, Victoria et triumphus et de insulis in Mari Indico nuper, repertis.*'\* The latter part of the title is found to re-

\* Our readers will be edified with the following specimen of the strain in which true Castilians venerate their legitimate sovereign. After exulting in his great attributes, the panegyrist comes to the fruitful topic of his vast power, and says, 'De auctoritate in rege presertim supervacaverrim est dicere; quem omnes socii et populares colunt ut Deum; nostri metuunt ut pestem.' To the worship of his neighbours, the royal descendant of Ferdinand may have succeeded, for any thing we know; to the peculiar species of veneration rendered to that prince by his faithful subjects, we believe he has pretty fully established his claims—and so loyal a people are not likely to withhold it.

fer wholly to Columbus' letter. It is printed again in a collection of six pieces by Henricus Petrus at Basil, in the year 1533, who says he took them all '*ex antiquo et scripto exemplari.*' And it is given, with less correctness, in the collection called *Hispania Illustrata*, tom. II. p. 1282, published in 1603 at Frankfort. The only two other copies known to exist, are the one in the Magliabechi Library at Florence, described by Fossius, and another at Rome, in the Casanata Library. The English translation, which we shall subjoin, of this piece, is from the Milanese copy, the most ancient and correct, together with the MS. note upon it. We have a few particulars further to premise.

It is clear, that the Admiral confines himself to a very short account of his grand discovery; for he makes no mention of some of the incidents, the most touching him personally, in the course of his voyage. Thus he says nothing of the discontents and mutiny of his crew; the alarm excited by the variation of the compass; the loss of his vessel by shipwreck in the West Indies; the desertion of Pinson; the separation of the Pinto, which, it must be observed, had not rejoined him when the letter was written,—for she arrived after him at Palos. Nor does he allude to the two violent storms on the voyage homewards, one of which had so nearly prevented his return. With respect to the more public transactions, he scarcely omits any of importance. From these omissions, no discredit is thrown upon the document, which is incontestably genuine. But a very extraordinary circumstance might seem at first to occasion some doubts. Columbus says, that he arrived in the Indian Sea the thirty-third day after his departure. Now, by the concurrent testimony of all historians, from Don Ferdinand to Dr. Robertson, he sailed from Palos the third of August, 1492, and discovered the island of Guanahani or St. Salvador, on the night of the eleventh of October, or rather at two in the morning of the twelfth. Nor is it possible that he could have made the passage in the shorter period, under the difficulties of a first voyage, and including his stopping at the Canaries. We take it that this difficulty is easily removed, by attending to the words of the translation. '*Tricesimo tertio die postquam a Gadibus discessi.*' He never sailed from Cadiz—but from Palos; and '*Gadibus*' must be an error of the translator or his printer for *Gomera*, the Canary Island whence he took his departure; and where, as Robertson observes, the voyage of discovery may be said properly to begin. Now, according to Don Ferdinand, he left Gomera on the sixth of Septem-

ber; and thirty-three days from that brings him to the ninth of October, when he certainly was in the Indian Sea, and so confident of making land, that he only desired his mutinous crew to bridle their impatience for three days longer, and he assured them of landing within that time, as in fact they did. If, however, the time refers to his discovering land, and not to his arrival in the Indian Seas, then we submit that the difference of three days is easily accounted for, upon the supposition of the number having been originally written in figures thus, XXXVI; and the translator or printer having copied III. instead of VI. by a natural blunder.

Don Ferdinand says, that he entered the Tagus on the *fourth* of March, 1493—came before Lisbon on the *fifth*—was sent for by the King the *seventh*—departed for Seville on Wednesday, the *thirteenth*—and arrived at Palos on Friday, the *fifteenth*. Dr. Robertson states his departure on the ninth, which was the day he returned from his visit to the court. Now the letter is dated the *fourteenth*. But this seems a discrepancy of no moment. In all probability, the date was written XIII. in the original Spanish; and the translator, or the copy from which he wrote, made it XIV.

*Translation of COLUMBUS's Letter from the Latin of the Milanese Edition,*

**CONCERNING THE DISCOVERED ISLANDS.**

**A Letter of Christopher Columbus (to whom our age is much indebted) concerning the Islands lately discovered in the Indian Sea—in search of which he had been sent eight months before, under the auspices, and at the expense of the most invincible Ferdinand, King of the Spains—addressed to the Magnifico Don Raphael Sanxio, Treasurer of the same most Serene King: Which Letter, the Noble and learned Alexander de Cosco has translated from the Original Spanish into Latin—on the third of the Kalends of May 1493—in the first year of the Pontificate of Alexander Sixth.**

HAVING now accomplished the undertaking upon which I set out, I know that it will be agreeable to you to be informed of all that I have done and discovered in my voyage. On the thirty-third day after I had left Cadiz, I reached the Indian Ocean, where I found a great many islands, peopled by innumerable inhabitants, of all which I took possession, without resistance, in the name of our most illustrious King, with public proclamation and hoisting our colours. To the first of these islands, I gave the name of the Divine Saviour, trusting to whose protection I had reached it and all the rest. Its Indian name, however, is Guanahanyx. In like manner, I gave new names to the whole. One was named from Holy Mary of the Conception—another Fernan-

dina—another Isabella—another Joanna—and in like manner of the rest. When we landed upon that island, which, I have just said, was named Joanna, I proceeded along its shore, somewhat towards the west, and found it of so great an extent, without any apparent termination, that I conceived it not to be an island, but part of the Continent—a province of Cathay. However, you see neither cities nor towns situated on its shores—only a few villages and rural farms. I could not enter into conversation with its inhabitants; and, accordingly, as soon as they saw us, they took to flight. I advanced forward, thinking that I should find some town, or country houses; but, at length, perceiving that nothing new was likely to appear, however far we might go—and that our progress was carrying us directly north, which I was particularly desirous to avoid, as winter was now set in, and the winds were, besides favourable for our voyage southwards, the direction which I wished, I determined to make no further search, but returned to a harbour, whose situation I had marked. I notwithstanding sent from hence two of our men into the country, to inquire, whether there were any king or cities in the province. They pursued their course for three days, and met with innumerable people and inhabitants—a paltry race, however, and without any government;—so they returned. I had, in the mean time, been informed by some Indians, whom I found there, that the country was in fact an island. I accordingly proceeded towards the east, always keeping along the shores, for three hundred and twenty-two miles, where the island is terminated. From hence I saw another island to the east, distant from this of Joanna 54 miles, to which I immediately gave the name of Hispana, and made for it. As I had before done at Joanna, I coursed along it to the east, by the north, for 564 miles. Joanna, and the rest of these islands are astonishingly fertile. This one is surrounded by the safest and most admirable harbours which I ever saw: There are likewise in it many very lofty mountains. All these islands are very beautifully shaped, in a great diversity of forms. They abound in the finest variety of trees, so lofty that they seem to reach the stars—never, I believe, without foliage; for, when I saw them, they were as beautiful and green as our trees in Spain are in the month of May—some in flower—others bearing fruit—others in a different state, but each most suited to its quality: The nightingale, and innumerable other birds of all kinds, sung amidst their shades; and yet it was the month of November when I passed under them. In the above mentioned island of Joanna, there are moreover seven or eight kinds of palm-trees; which, for stature and beauty, (as indeed may be said of all their other trees, herbs, and fruits), far surpass ours. There are pines, too, of an admirable beauty—fields and meadows of the utmost extent—birds of many different species—honey of various flavours—metals of all

kinds, except iron. In that one which, as I have already said, I called Hispana, the mountains are the highest—the country and woods are of great extent—the meadows very fruitful, and particularly well adapted for corn, pasture, or the situation of houses. The convenience of the harbours in this island, and the abundance and salubrity of the rivers, must almost exceed the belief of those who have not seen them. Its trees, pastures and fruits, are very different from those in Joanna. It abounds, besides, in various sorts of aromatics,—in gold and metals. Of this island, and of all the others which I have seen or obtained any knowledge of, the inhabitants go naked, both sexes alike, just as they were born: except that some of the women have a leaf, or some sort of cotton covering, which they themselves prepare for that purpose, about their middle. As I have already said, all these people are utterly without iron of any sort;—they are also without arms, of which they know not the use, and indeed would be ill adapted to make use of them; not from any bodily defects, for they are well formed, but because they are remarkably timid and fearful. The only kind of arms they possess are canes parched in the sun, on the roots of which they fix a sort of spear-head of dry wood sharpened into a point: Yet these they do not often dare to use—for it frequently happened that when I had sent two or three of my men, to some of the villages that they might have communication with their inhabitants—a whole body of Indians would come out;—but no sooner did they see our men approach, than off they set, parents deserting their children, and children their parents without any scruple. Nor was this owing to any violence on my part, as I was particularly anxious that they should meet with no injury;—on the contrary, among whatever people I landed, or whom I could bring to conference, I always imparted to them, in quantities, whatever I happened to have—such as cloths and many other things—nor took any thing from them in return.—But they are by nature of a very timid disposition.—Whenever they know themselves to be in safety however, and get over their fears, they are an uncommonly simple and honest people—very liberal in bestowing whatever they possess.—They never refuse a request: nay they themselves invited us to make demands of them.—They have in truth a show of the greatest good will to all: they give things of great value for what is of scarce any—and are indeed content with very little or almost nothing in exchange. I however made a point that they should not be imposed upon by the very trifling and worthless articles which were apt to be given them, such as broken bits of earthen ware, or of glass—likewise nails;—although the truth is, if they might but obtain these, they thought themselves possessed of the most beautiful ornaments in the world. A sailor, on one occasion, got for one nail as great a weight of gold as would have made three golden nobles: and in the same way, for other articles of still less value,

they gave whatever the purchaser was inclined to ask them.—But because I felt this to be an unjust species of traffic, I forbid it; and gave them many useful and beautiful articles which I had brought along with me, without any return being asked—that I might render them more friendly to me—that I might gain them over to the christian faith—that they might be well affected towards our King, Queen, nobles, and the whole Spanish people, and might search out for those things in which themselves abound, and of which we are much in want, and laying up stores of them, have where-withal to enter into traffic with us.—They have no idolatry amongst them—but seem to have a firm persuasion, that all force, power, and all good things are from Heaven,—from whence indeed they imagined that I had come down with my ships and sailors; as I discovered from them, after they had so far lost their apprehensions as to converse with us.—They are neither sluggish, nor rude,—on the contrary they are of an intelligent and piercing mind;—and the relations which those of them who ferry across the seas give of the various particulars which they have seen, are very distinct and lively.—But none of them had ever before seen any people clothed, or ships such as ours.—As soon as I had come into that sea, I carried off by force from the first island which I reached, a few of the inhabitants, who might be instructed by us, and instruct us in the course of our voyage, concerning the matters with which they were conversant;—and the plan turned out remarkably well. In a very short time, we understood them, and they us by gestures and signs, and even words;—and they were of very great use to us. They never, however, gave up the impression, however long they remained with us (and indeed they still are with us) that I had lighted down from Heaven;—and they spread the notion wherever we landed—calling out with a loud voice, which was repeated from one to another—come, come and you will see a race of ethereal people!—The consequence has been, that laying aside their fears formerly entertained, vast crowds of men and women, children and adults, young and old, came round us from all quarters; some offering us meat, others drink, with the utmost and most incredible kindness.—All these Islands possess many boats made of solid wood,—and although very narrow, yet resembling our boats both in length and form, only considerably more rapid in their course.—They are managed by oars only. Some of them are large, others small, and others again of a middling size. With the larger ones they pass from one island to another, and carry on a traffic throughout them all, innumerable as they are. I have seen some of these boats or barges which carried seventy or eighty rowers. In all these islands there is no diversity in the appearance of the people; their manners and speech are alike—so that they all understand one another;—a circumstance peculiarly important for the purpose which our most Serene King had

principally in view—their conversion, I mean to the holy faith of Christ. As far as I can make out, they are very far from being disinclined to it. I already mentioned how I coasted along the island Joanna 322 miles to the east; and I am persuaded, from what I saw and heard, that this island is greater than England and Scotland together. It contains two other provinces which I did not see, one of which the Indians call Anan, where there are men with tails—and that province is 180 miles long, according to the report of those Indians whom I carry along with me, and who are very well acquainted with these islands. The circumference of Hispana I take to be greater than that of all Spain, *a Cologna usque ad fontem rabidum*—if I may reckon as a fourth of the whole, that side, which I passed along in a right line from west to east, about 540 miles. On this island of Hispana, although I had solemnly taken possession of all these islands in the name of our invincible King—I yet fixed upon a spot more advantageous than any other for commerce, and every opportunity of wealth—with a view to the erection of a metropolis, to which I have given the name of our Lord's Nativity—and of which, in a more peculiar manner, I have taken possession for the King. There I immediately gave orders for the building a fort, which will soon be finished—in which as many men as may be necessary, with all sorts of arms, and more than a year's provision, may be left. Here likewise I shall establish a carpenter's workshop, and leave people skilled, not only in this, but in other arts, partly on account of the great friendship and kindness which I have experienced from the king of this island, the inhabitants of which have been most amiable and well-affected; and the king has even gloried in styling me his brother. If they should change their dispositions, they yet cannot hurt those who are left in the fort, however desirous they might be of doing so. They have a great dread of arms—are themselves naked, and remarkably timid—so that the possessors of the fort may in fact be said to possess the whole island, without any hazard to themselves, if they will keep within the laws and regulations which I have prescribed for them. In all these islands, according to my information, no man has more than one wife, except the Chiefs and Kings, who may have as many as twenty. The women seem to work more than the men; and I have not been able to discover, whether there is any such thing as separate property; for I have always seen these people impart to each other whatever they had, particularly food, and things of that sort. I found no monsters among them, as some have imagined, but every where men of a very estimable and benign aspect. Neither are they black, like the Africans: their hair is smooth and long. Indeed, they do not live in a country where the solar rays are particularly powerful, being distant from the equator about six and twenty degrees. The cold is very severe on the tops of the mountains. Yet the Indians of these regions

prevent its most disagreeable effects, partly by the use of very high-seasoned food, of which they are extremely fond; and custom inures them to the climate. There are then, as I have said, no monsters, at least that I saw; and the only information I received of any such, was of the inhabitants of an island called Charis, which, to those who are sailing for India, follows second in order immediately after the island of Hispana. This people are looked upon by their neighbours as very ferocious, so as even to eat human flesh. They have many various sorts of boats, with which they pass into all the Indian islands, and carry off whatever they lay their hands on. They differ in no respect in appearance from the other islanders, except that they have long hair like women. They make use of bows, and cane spears with whetted points, fixed, as I have already described, in the thicker part. From their ferocity, they are objects of great terror to the rest of the Indians; but, for my part, they do not seem to me more formidable than the others. They cohabit with a race of women who are the sole inhabitants of another island immediately succeeding Hispana, as you sail for India. These women are not employed in the common occupations of their sex, but, like their husbands, carry bows and spears, and are protected by plates of brass, with which their island abounds. I have been told that there is another island still larger than Hispana: its inhabitants have no spears—but, like all the others, are overflowing with gold. Some of the inhabitants of this, and of the other islands which I have seen, I have along with me, who confirm, by their testimony, the above particulars.

To conclude with summing up, in a few words, the advantages to be derived from this our short voyage and speedy return—I may fairly promise, that I can supply our invincible sovereigns, if I am supported by their kind assistance, with as much gold as they can have occasion for—and as great a quantity of aromatics and aloes and rhubarb, as their Majesties may think proper to require. I have no doubt that these will be collected in great abundance by the men whom I have left in the fort—for I myself made no longer stay than the winds forced me—except the time that I remained in the city of the Nativity while the fort was building, and I was providing for the safety of those who were to be left. These are very great, and, as yet, unheard of advantages; but they might be much further extended, if, as would be reasonable, a supply of ships should be given me. This great and wonderful field of discovery is far beyond our merit, and can correspond only to the magnificence of the Christian Faith, and to the piety and religion of our Sovereigns. It is not the accomplishment of an human intellect, but is truly the gift of the Divine Mind. It is not unusual indeed with God to listen to the entreaties of his servants who love his precepts, even when they seem to be asking impossibilities—as appears to have been his dealing with us who have been per-

mitted to perform, what the powers of men had never before so much as bordered upon. For whatever may have been hinted in former times of the existence of these islands, either in writings or in discourse, it is certain that it was only by obscure conjecture, and that no one ever asserted that he had seen them; and accordingly, their existence appeared merely fabulous. Let then our King and Queen, their Nobles, and all their happy realms—and indeed all the nations of Christendom, return thanks to our Saviour the Lord Jesus Christ; because he has magnified us with so great bounty and victory;—let solemn processions and other holy offices be celebrated; and let the temples be veiled with festive boughs. Glory be henceforth to Christ on the earth, as there is glory in the Heavens—for he is advancing forth to bring salvation to the perishing souls of the Heathen. Let us too rejoice, both on account of the exaltation of our Faith, and of the increase of our temporal advantages, in which not only Spain but all Christendom will participate. This then is a short narration of our performances. Farewell.—Lisbon, the day before the Ides of March.

We subjoin the MS. note describing the volume from which the above letter is extracted.

‘Constat foliolis novem in 8° vel 4° parvo. Fol. primo recto habentur insignia Regis Hispaniar. cum Inscriptione Reg. Hispaniae; eod. verso tabula exhibens *Oceanicam classem*. Fol. 2do recto Epistolae initium cum titulo supra relato cui praemittuntur haec verba char. maj. *De Insulis Inventis*. Eodem fol. 2. verso tabula exhibens Insulam Hyspanam. Fol. 3. recto sequitur Epistola, eodem verso tabula exhibens Insulas Fernandam, Isabellam, &c. Fol. 4. sequitur textus. Fol. 5. recto iteratur tabula exhibens *Oceanicam classem*. eod. verso, uti et fol. 6°. sequitur textus. Fol. 7°, verso tabula exhibens Insulam Hyspanam. Deinde sequitur textus usque ad 9<sup>m</sup> fol. rectum quo Epistola absolvitur absque ulla nota typograph. char. est Gothicus nitidus. Lineae in qualibet pag. 27. Desunt custodes et numeri paginar. Fol. 1<sup>m</sup>, 2<sup>m</sup>, 3<sup>m</sup>, et 4<sup>m</sup>. prae se ferunt signaturas i, ij, iij. Tabulae ligno excultae, sed satis elegantes. Initiales literae minio pictae.

Editionem hanc, quae Saci est XV. nullibi descriptam invenimus. Edition. alteram Saci pariter XV. memorat Fossius (F. 1. p. 561) sed ab hac nostra plane diversam, utpote quae quatuor solum° plagulis constat, tabulis caret, &c.

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**ART. VII.—Intelligence in Science, Literature, and the Arts.**  
IN our Number for April, we extracted a short account of a book, in which there was an ingenious attempt to prove, that Sir Philip Francis was the author of Junius' Letters. We attach as little importance to the question as any of our readers; but, as another still more authoritative attempt has lately been made by Mr. Chalmers, we feel ourselves under some obligation to report his success. His publication extends to one hundred and fifteen pages; and he thinks he has fastened the authorship

upon Hugh Boyd, by a ‘concatenation of circumstances, amounting to moral demonstration.’ The testimony of Mr. Boyd’s wife seems to be almost conclusive.

‘Mrs. Boyd, who is a sensible and a discreet woman, says, 1st, That at the end of the year 1768 Mr. Boyd commenced his correspondence with the Public Advertiser; and on the 21st of January, 1769, the first letter of Junius appeared in that paper: that in 1769 and 1770 he also wrote occasionally in the same paper, under the signatures of Lucius and Brutus; and he sometimes sent communications to H. S. Woodfall, without any signature at all. Secondly, She says that in January, 1769, Mr. Boyd was at great pains in accustoming himself *to disguise his hand-writing*; and showing her slips of paper, he used to ask her whether she thought he had disguised his hand sufficiently; to which she said, he had so completely disguised his hand, that none but *those very well acquainted with his common hand would suspect the writing to be his*. Thirdly, She says, that Mr. Boyd, notwithstanding her intreaties, would not take in the Public Advertiser, while Junius was published in it, during the years 1769 and 1770; yet he himself always manifested much solicitude to see the letters of Junius, and would tell with animation, *that Junius was announced for to-morrow*. Fourthly, She says, that during 1769 and 1770, Boyd continued to send letters secretly to the Public Advertiser almost every week, superscribed in his disguised hand; and at this time he used eagerly to seek opportunities of introducing the subject of Junius; and whatever their private conversation might be, they always ended with Junius. Fifthly, After the publication of Junius’s letter to the king, Boyd used to redouble his arts of secrecy; and would sometimes take her out a walking, and would slily put a packet in some penny-post office, at a distance from Woodfall’s office; and would at other times ask her, taking his packet out of his pocket, to carry it to Woodfall’s letter-box, at the corner of Ivy-lane; and often, when they returned home from such walks, she would hint to him that *she suspected he was Junius*; but to this he would make no reply, but turn the conversation. Sometimes he would write under other signatures, and ask her to copy what he had written, and send such copy to the printer. Sixthly, She says, that in June, 1771, Mr. Boyd took a house at Ruston Green, near Harrow, when Junius’s controversy with Mr. Horne began, and Mr. Boyd manifested the same eagerness about it; and while it lasted, he used to write every forenoon; and when he had finished what he had written, he would walk with it to London, and return the same day; and he used to say, that Mr. Horne was an able reasoner, but that Junius, notwithstanding, had the better of him. Seventhly, She further says, that in November, 1771, Boyd borrowed, from a neighbour of his at Ruston Green, several law-books and state-trials, which he daily read, with seeming much attention, for the purpose, as she thinks, of supporting the charge of Junius against Lord Mansfield for admitting *Eyre to bail*, the result whereof appeared in Junius’s letter to Lord Chief Justice Mansfield, of the 21st of January, 1772; and that about three weeks after the publication of that letter Boyd went to Ireland, and Junius ceased to write under this signature in the Public Advertiser, when he was extremely embarrassed in his circumstances. Eighthly, She also says, that during the same year (1772) Junius’s Letters were republished in a book, with a dedication, preface, and notes; which publication seemed to relieve Mr. Boyd’s mind from a burden; and that, after that publication, he never was at so much pains to conceal from her the contents of the letters which he occasionally transmitted to the Public Advertiser. Ninthly, She moreover says, that on the

very day whereon the above-mentioned edition of Junius's Letters was published, he brought home with him a copy of the same book, and presented it to her with the kindest animation in his face; and that, in looking over the pages, she was much struck at seeing some anecdotes of lord Irnham, Miss Davis, and Mr. Nisbet, one of her guardians, which she had communicated *in confidence* to Mr. Boyd, and which she knew had been very studiously kept secret by the parties concerned.\* Tenthly, She finally says, that she repeatedly told Mr. Boyd that she had strong suspicions he was Junius; but, to all she said on that subject, he was totally silent.'

But Mr. Chalmers adduces the still more conclusive evidence of Boyd himself; which, if the confessor is to be believed, and if the reporter is to be confided in, seems to put the matter beyond all possibility of question.

' We are now arrived at the last step of this concatenation of evidence. When the jury has heard all the previous circumstances of a criminal case, what remains for their decision, when the confession of the culprit is laid before them? Mons. Bonnecarrere, late minister plenipotentiary, director-general of the foreign department, under Louis XVI, being sent on a confidential mission to India, became acquainted with Hugh Boyd, at Madras, in 1785: and going afterwards to Calcutta, Bonnecarrere, instead of being treated as a spy, was received into the house of Sir John Macpherson, with all the good-nature and genuine hospitality which is so natural to that admirable man. Here Hugh Boyd joined him, during the same year; when the familiarity between Bonnecarrere and Boyd was carried up to friendship. It was in this residence, and on that occasion, that Hugh Boyd made a confidential declaration to Bonnecarrere, on condition that he should not reveal the secret to the governor-general of Bengal, nor to any one else, during Boyd's life, '*that he was the real author of Junius's Letters.*' M. Bonnecarrere seems to have acted honourably towards Boyd. He kept this secret, which was so important to Boyd, till he was assured that the *author of Junius* was no more, and could neither be injured by his unfaithfulness, nor vexed by his garrulity. He made the first mention of the secret to the respectable character, in whose hospitable mansion the interesting trust was reposed in him. M. Bonnecarrere has recently published a solemn declaration of the same fact in *Le Journal des Débats*. But I do not perceive that he has added any material fact in addition to the important secret which he revealed in 1802 to Sir John Macpherson; except giving a sort of narrative of the manner in which he became acquainted with Boyd, and the mode how their acquaintance, by various attentions, was carried up to friendship.'

To these testimonies may be added that of John Almon, a bookseller, in Piccadilly.

' The next witness whom I will call, is John Almon, who knew many anecdotes of many men, while he acted as a bookseller in Piccadilly; and he says, " that during October, 1769, a meeting of the proprietors of *The London Evening Post*, being held at the Queen's Arms, St. Paul's Church yard, Mr. Woodfall, the printer of the Public Advertiser, was present; when there was a conversation concerning newspapers, and other such topics, in the course of which something was remarked that caught Mr. Woodfall's attention: and he immediately said, " he had a letter from Junius in his pocket, which he had just received, wherein there was a

\* Those anecdotes were introduced into and upon Junius's Letter, No. LXVII, dated the 27th of November, 1771, being the last letter addressed to the duke of Grafton.

passage that related to the subject before them, and he would read it." This letter consisted of three or four sheets of foolscap; and while Mr. Woodfall was reading one sheet, the other sheets lay on the table; and I saw them, in common with the company then present, but did not take them into my hands: the moment I saw the hand-writing, I had a strong suspicion *that it was Mr. Boyd's, whose hand-writing I knew*, having received several letters from him concerning books. I took no notice of the matter at that moment; but the next time that Mr. Boyd called on me, (for he was in the habit of frequently calling at my house in Piccadilly,) I said to him, that I had seen a part of one of Junius's letters in manuscript, which I believed was his hand-writing: he changed colour instantly; and, after a short pause, said, the similitude of hand-writing is not a conclusive fact [proof.] These were the first grounds of my suspicion.

'Almon says, secondly, that Junius always speaks handsomely of Lord Temple; praising his "firmness, perseverance, patriotism and virtue." And Almon adds, from his own knowledge, that, whenever Mr. Boyd spoke of Lord Temple, it was always in similar terms.

'Almon says, thirdly, that during the whole time the prosecutions were going on against the printer and publishers of Junius's Letter to the King, *Mr. Boyd never once called upon me*, which I could not help observing; because, *before this time*, he commonly called twice or thrice a week; and I thought it not less remarkable, that *after the prosecution was totally at an end*, he resumed his former custom.

'Almon says, fourthly, what is material to his conclusion of Boyd being the writer of Junius, that during the publication of Junius's letters, the writer must have resided on the spot: and that no gentleman of rank and fashion would live three complete years [January, 1769, to January, 1772] in London, for the sake of writing political letters, and answering anonymous antagonists. Almon further says, that though Junius's letters had been ascribed to many persons, yet none of them were hurt by the imputation, because it was false; but when Junius was only attributed to Mr. Boyd by inference, Mr. and Mrs. Boyd immediately took the alarm. Almon moreover, says, that he knows that the Whig was also written by Mr. Boyd; and he had heard very good judges say, that there are passages in the Whig equal in force and eloquence to any thing in the writings of Junius.

'Almon, finally, says, that he had no doubt of Mr. Boyd's being the author of these letters; that H. S. Woodfall, the first printer of them, never knew the author of Junius; and as he never knew who *was*, he could *not* undertake to assert who *was not* the author.'

In a few days will be published, part the first of Pompeiana, being observations on the topography, edifices, and ornaments of Pompeii, with six engravings, from drawings made on the spot, by Sir W. Gell and J. P. Gandy, Esq.

The second edition of Mr. Murray's Elements of Chymical Science, is in the press, and will be forthwith published. This edition will contain a succinct and lucid view of those important and beautiful discoveries, which have illuminated the rapid and brilliant march of chymistry.

The Rev. Hugh Pearson's Memoirs of the Life and Writings of the Rev. Cladius Buchanan, D. D. will appear early in March.

The Society of Friends have established in London a second society, against war, founded on their peculiar theological opinions—not merely against wars of aggression, passion, or ambition, but against wars even in self-defence. We abhor the wicked custom of war too much to differ in regard to the terms in which the abhorrences are expressed by any set of

men—but, while there are wolves in the world, we much doubt the wisdom of playing the part of lambs, unprepared and unwilling to defend ourselves. The original society have published *three Tracts*, at three-pence each, which are enjoying, as they merit, extensive circulation.

A new and greatly enlarged edition, by the author of the Rev. Rowland Hill's *Village Dialogues*, is in the press, and will be completed in twenty-four numbers.

At press, *Annual Biography and Obituary*, with Silhouette Portraits, containing, 1. Memoirs of those celebrated men, who have died within the year 1816. 2. Neglected Biography, with biographical notices and anecdotes, and original letters. 3. Analyses of recent biographical works. 4. An alphabetical list of persons who have died within the British dominions, so as to form a work for reference, both now and hereafter.

Major Rennell will soon publish, in a quarto volume, *Illustrations of the History of the Expedition of the Younger Cyrus, and Retreat of the Ten Thousand Greeks*, with explanatory maps.

Mr. J. M. Kinneir is preparing a journey through Asia Minor, Armenia, and Kurdistan, in 1813 and 1814, with remarks on the marches of Alexander, and the retreat of the Ten Thousand.

Miss Edgeworth has a volume of *Comic Dramas* in the press.

Speedily will be published, the *Annual Register; or, a View of the History, Politics, and Literature, for the Year 1808*, being the eighth volume of a new series. In one large volume. The volume for 1797, in continuation of the former series, will also be published about the same time; in which, among much other important matter, will be found a more full and authentic account than has hitherto appeared, of French affairs, from the autumn of 1795 to that of 1797.

At press, an *Abridgment of Universal History*, commencing with the creation, and carried down to the peace of Paris in 1763, in which the descent of all nations from their common ancestor is traced, the course of colonization is marked, the progress of the arts and sciences noticed, and the whole story of mankind is reviewed, as connected with the moral government of the world, and the revealed dispensation. By the Rev. E. W. Whitaker, rector of St. Mildred's, Canterbury. In 4 vols. 4to. 8*l. 8*s.**

The late Professor Robinson's *System of Mechanical Philosophy*, with notes and illustrations by Dr. Brewster, is printing, in four octavo volumes, with numerous plates.

In the course of this month will appear, the *Speeches of Charles Phillips, Esq. delivered at the Bar, and on Various Public Occasions, in Ireland and England*. In 8vo. This volume is edited by Mr. Phillips himself, and is the only publication of his speeches authorized by him.

In the course of February will be published, a *Description of the People of India*; with particular reference to their separation into casts; the influence of their civil policy and domestic superintendence; their idolatry and religious ceremonies; and the various singularities of customs, habits, and observances, which distinguish them from all other nations: taken from a diligent observation and study of the people, during a residence of many years among the various tribes, in unrestrained intercourse and conformity with their habits and manner of life. By the Abbé J. A. Dubois, missionary in the Mysore. In 4to.

An Edinburgh Monthly Magazine is about to be commenced; the first number will appear early in April.

Mr. John Scott will soon publish the *House of Mourning*, a poem, with some smaller pieces.

T. S. Raffles, Esq. late lieutenant-governor of Java, has in the press, in a quarto volume, an *Account of the Island of Java*, illustrated by a map and numerous plates.

*An Examination of the Objections made in Britain against the Doctrines of Gall and Spurzheim.* By J. G. Spurzheim, M. D. 8vo. 2s.

The *Literary Gazette and Journal of the Belles Lettres*, a large sheet, containing sixteen pages, price 1s. to be continued regularly every Saturday, and sent by the newsmen, free of postage, to all parts of the kingdom.

Letters from Almora announce that captain Webb, surveyor in Humaoon, had crossed the snowy mountains, and penetrated into part of Tartary. He met with a Tartar chief, and hoped to continue his researches uninterrupted.

The rajah of Burdwan has generously contributed 12,000 rupees to the establishment of the Hindu College. The business of this institution proceeds without interruption, and is likely to be attended with success.

It is a singular circumstance, that none of the almanacs notice the now returning direction of the magnetic needle towards the north. In the year 1657 it pointed due north, but it has been one hundred and sixty years increasing in declination westward; last year it attained a declension of twenty-five, and then became stationary, and it is now receding back again to the north.

One of our fellow-citizens, M. Von Syngel, has employed nine years of intense study, for the purpose of finding out some method of simplifying arithmetical calculations, and has succeeded, in the most complicated rules, in decomposing, producing, and reducing in one minute, and by means of a dozen figures, operations which required hours, and whole columns of almost unintelligible fractions. His method is applicable to money of all kinds.—*Ghent.*

On the first of March will be published at Paris, *Annales Encyclopédiques*, vol 1, to be continued every two months, edited by Professor Millin, of the Institute, &c. This work may be considered either as a new work, or as a continuation of *Le Magazin Encyclopédique*, which was suspended last summer, on account of the stamp-duty on all periodical works under twenty sheets. The same law still operates. To avoid its hateful operation, the Chevalier Millin proposes publishing two numbers in one, at intervals of two months; and, as the *Magazin Encyclopédique* was already very voluminous, he has deemed it better to make a slight change in the title; but the principles of the work and its nature will be the same; the plan, indeed, will be more extensive,—it will contain accounts of all new discoveries in the arts, sciences, and literature; the proceedings of learned societies in every part of the world; literary essays and correspondence on all subjects, excepting the exact sciences, as geometry, mathematics, &c. The price, delivered in Paris, is six francs (five shillings) each volume, but the subscription must be for a year or 30s.

*Most interesting Drawings.*—On the sailing of the French expedition for Egypt, from Malta, under Bonaparte, the fleet was intentionally dispersed in order to arrive without being noticed; they had no sooner left Malta, than they learned that Admiral Nelson had penetrated their design, and was in pursuit of them. Expecting every hour to be come up with, and being too weak to risk a combat, it was the resolution of Bonaparte and the rest of the illustrious persons on board l'Orient to blow her up, rather than be taken prisoners; but, that the memory of those who per-

ished might be preserved, and their features known by posterity, Bonaparte caused the portraits of eighteen to be taken on two sheets of paper, which were to be rolled up, put in bottles, and committed to the waves; the names of the persons are, (first drawing,)—Dessaix, (dead;) Bonaparte; Berthier, (dead;) Caffarelli, (dead;) Kleber, (dead;) Brueys, (dead;) Dolomieu, (dead;) Monge; Berthollet. Second drawing—Ramon; Murat, (dead;) Junot, (dead;) Lasnes, (dead;) Reynier, (dead;) Belliard; Desgenettes; Snulkanski, (dead;) Larrey. Thus, of the eighteen, eleven are now no more; the portraits are executed in medallions in Indian ink, and now ornament the study of Baron Larrey, at Paris.

There has been lately found, in a temple at Pompeia, a stone, on which are engraved the linear measures of the Romans.

The exhibition of recent works of British artists at the Gallery of the British Institution, in Pall Mall, is on the whole less attractive this year than usual. There are two hundred and forty-two subjects; but the walls are thinly covered, and some of the large pictures would be considered unworthy of any private gallery. At the same time, there are a few pleasing or good pictures; and, in regard to the others, probably the spirit of artists suffers in the general stagnation of patronage and industry, owing to the taxes, consequent on certain wars of questionable justice and necessity. It must be admitted that an exhibition, in which there are two subjects by WILKIE, cannot be devoid of interest; and his Pedlar and Sheep-washing, are deserved favourites in these rooms: the latter, in particular, exhibits new and very pleasing powers of the artist. There is besides a picture, exquisite in design and execution, by CARSE, representing a field preacher among a congregation of sighing souls, in a Scottish village. Two cottage subjects by JONES, promised increased reputation to the artist; and two or three rustic pieces by COLLINS, are worthy of his established renown. A view, by CHALONS, of the concourse of boats surrounding the Bellerophon, well records that suffrage of an intelligent people; while the deficiency of battle pieces, proves the return of moral sentiments, at least among our artists. Raphael and La Fornarina by FRADELLE, a Farmer's Family by MASQUERIER, and a view of this Gallery by STEPHENOFF, Evening by Martin, and a Dutch Passage-boat by POWELL, are highly creditable to the several artists. As the exhibition includes subjects for sale, novelty is not exclusively a recommendation to a place in it; there are, consequently, many pictures found here which appeared in the last exhibition of the Academy, of which we do not affect to speak. The sculptures are unworthy of notice. On the whole, we are sorry to be obliged to infer, from this display, that, for want of suitable patronage, the arts, as compared with years of greater public prosperity, are on the decline; but we hope the causes and the effect will be temporary.—*Month. Mag.*

THE  
SOUNDNESS OF THE POLICY OF PROTECTING  
DOMESTIC MANUFACTURES;  
FULLY ESTABLISHED BY  
ALEXANDER HAMILTON,  
IN HIS REPORT TO CONGRESS ON THE SUBJECT,  
AND BY  
THOMAS JEFFERSON,  
IN HIS LETTER TO BENJAMIN AUSTIN.  
TO WHICH ARE ADDED,  
EXTRACTS FROM THE ADDRESS OF THE AMERICAN SOCIETY  
FOR PROMOTING DOMESTIC MANUFACTURES,  
ESTABLISHED IN NEW YORK.

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"Though it were true, that the immediate and certain effect of regulations controlling the competition of foreign with domestic fabrics, was an increase of price, it is universally true, that *the contrary is the ultimate effect with every successful manufacture*. When a domestic manufacture has attained to perfection, and has engaged in the prosecution of it a competent number of persons, it invariably becomes cheaper.

"*The internal competition, which takes place, soon does away every thing like monopoly*, and by degrees reduces the price of the article to the minimum of a reasonable profit on the capital employed.

"*It is the interest of the community, with a view to eventual and permanent economy, to encourage the growth of manufactures*. In a national view, a temporary enhancement of price must always be well compensated by a permanent reduction of it.

"This eventual diminution of the prices of manufactured articles, which is the result of internal manufacturing establishments, *has a direct and very important tendency to benefit agriculture*. It enables the farmer to procure, with a small quantity of his labour, the manufactured produce of which he stands in need, and consequently increases the value of his income and property.

"The uniform appearance of an abundance of specie, as the concomitant of a flourishing state of manufactures, and of the reverse, where they do not prevail, afford a strong presumption of their favourable operation upon the wealth of a country."

*Alexander Hamilton.*

"*To be independent for the comforts of life, we must fabricate them ourselves*. We must now place the manufacturer by the side of the agriculturist. The grand enquiry now is, *shall we make our own comforts, or go without them at the will of a foreign nation?* Experience has taught me that manufactures are now as necessary to our independence as to our comfort."

*Thomas Jefferson.*

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THE PROMOTION OF AMERICAN MANUFACTURES.

.....  
1817.

## EXTRACT

*From the Report of Alexander Hamilton, Esquire, Secretary of the Treasury, January, 1790.*

THE expediency of encouraging manufactures in the United States, which was, not long since, deemed very questionable, appears at this time to be pretty generally admitted. The embarrassments, which have obstructed the progress of our external trade, have led to serious reflections on the necessity of enlarging the sphere of our domestic commerce: the restrictive regulations, which in foreign markets abridge the vent of the increasing surplus of our agricultural produce, serve to beget an earnest desire, that a more extensive demand for that surplus may be created at home. And the complete success which has rewarded manufacturing enterprise, in some valuable branches, conspiring with the promising symptoms which attend some less mature essays in others, justify a hope, that the obstacles to the growth of this species of industry, are less formidable than they were apprehended to be; and that it is not difficult to find in its further extension, a full indemnification for any external disadvantages, which are, or may be experienced, as well as an accession of resources favourable to national independence and safety.

There still are, nevertheless, respectable patrons of opinions, unfriendly to the encouragement of manufactures. The following are, substantially, the arguments by which these opinions are defended:

"In every country (say those who entertain them) agriculture is the most beneficial and productive object of human industry. This position, generally, if not universally true, applies with peculiar emphasis to the United States, on account of their immense tracts of fertile territory, uninhabited and unimproved. Nothing can afford so advantageous an employment for capital and labour, as the conversion of this extensive wilderness into cultivated farms. Nothing equally with this, can contribute to the population, strength, and real riches of the country.

"To endeavour, by the extraordinary patronage of government, to accelerate the growth of manufactures, is, in fact, to endeavour, by force and art, to transfer the natural current of industry, from a more to a less beneficial channel. Whatever has such a tendency must necessarily be unwise: indeed it can hardly ever be wise in a government, to attempt to give a direction to the industry of its citizens. This, under the quick-sighted guidance of private interest, will, if left to itself, infallibly find its own way to the most profitable employment; and it is by such employment, that the public prosperity will be most effectually promoted. To leave industry to itself, therefore, is, in almost every case, the soundest, as well as the simplest policy.

"This policy is not only recommended to the United States, by considerations which affect all nations; it is, in a manner, dictated to them by the imperious force of a very peculiar situation. The smallness of their population, compared with their territory—the constant allurements to emigration from the settled to the unsettled parts of the country—the facility with which the less independent condition of an artisan can be exchanged for the more independent condition of a

## EXTRACT FROM ALEX. HAMILTON'S REPORT, &c. 3

farmer—these, and similar causes, conspire to produce, and, for a length of time, must continue to occasion, a scarcity of hands for manufacturing occupation, and dearness of labour, generally. To these disadvantages for the prosecution of manufactures, a deficiency of pecuniary capital being added, the prospect of a successful competition with the manufacturers of Europe, must be regarded as little less than desperate. Extensive manufactures can only be the offspring of a redundant, at least of a full population. Till the latter shall characterize the situation of this country, 'tis vain to hope for the former.

"If, contrary to the natural course of things, an unseasonable and premature spring can be given to certain fabrics, by heavy duties, prohibitions, bounties, or by other forced expedients; this will only be to sacrifice the interests of the community to those of particular classes. Besides the misdirection of labour, a virtual monopoly will be given to the persons employed on such fabrics; and an enhancement of price, the inevitable consequence of every monopoly, must be defrayed at the expense of the other parts of the society. It is far preferable, that those persons should be engaged in the cultivation of the earth, and that we should procure, in exchange for its productions, the commodities, with which foreigners are able to supply us in greater perfection, and upon better terms."

This mode of reasoning is founded upon facts and principles, which have certainly respectable pretensions. If it had governed the conduct of nations, more generally than it has done, there is room to suppose, that it might have carried them faster to prosperity and greatness, than they have attained by the pursuit of maxims too widely opposite. Most general theories, however, admit of numerous exceptions; and there are few, if any, of the political kind, which do not blend a considerable portion of error with the truths they inculcate.

In order to an accurate judgment, how far that, which has been just stated, ought to be deemed liable to a similar imputation, it is necessary to advert carefully to the considerations which plead in favour of manufactures, and which appear to recommend the special and positive encouragement of them, in certain cases, and under certain reasonable limitations.

It ought readily to be conceded, that the cultivation of the earth, as the primary and most certain source of national supply—as the immediate and chief source of subsistence to man—as the principal source of those materials which constitute the nutriment of other kinds of labour—as including a state most favourable to the freedom and independence of the human mind—one, perhaps, most conducive to the multiplication of the human species—has intrinsically a strong claim to pre-eminence over every other kind of industry.

But, that it has a title, to any thing like an exclusive predilection, in any country, ought to be admitted with great caution. That it is even more productive than every branch of industry, requires more evidence than has yet been given in support of the position. That its real interests, precious and important as, without the help of exaggeration, they truly are, will be advanced, rather than injured by

the due encouragement of manufactures, may, it is believed, be satisfactorily demonstrated. And it is also believed, that the expediency of such encouragement, in a general view, may be shown to be recommended by the most cogent and persuasive motives of national policy.

It has been maintained, that agriculture is not only the most productive, but the only productive species of industry. The reality of this suggestion, in either respect, has, however, not been verified by any accurate detail of facts and calculations: and the general arguments, which are adduced to prove it, are rather subtle and paradoxical, than solid or convincing.

Those, which maintain its exclusive productiveness, are to this effect:

Labour, bestowed upon the cultivation of land, produces enough, not only to replace all the necessary expenses incurred in the business, and to maintain the persons who are employed in it, but to afford, together with the ordinary profit on the stock or capital of the farmer, a net surplus, or rent for the landlord or proprietor of the soil. But the labour of artificers does nothing more than replace the stock which employs them, or which furnishes materials, tools, and wages, and yield the ordinary profit upon that stock. It yields nothing equivalent to the rent of land. Neither does it add any thing to the total value of the whole annual produce of the land and labour of the country. The additional value given to those parts of the produce of land, which are wrought into manufactures, is counterbalanced by the value of those other parts of that produce, which are consumed by the manufacturers. It can therefore only be by saving or parsimony, not by the positive productiveness of their labour, that the classes of artificers can in any degree augment the revenue of the society.

To this it has been answered,

1. "That inasmuch as it is acknowledged, that manufacturing labour reproduces a value equal to that which is expended or consumed in carrying it on, and continues in existence the original stock or capital employed, it ought, on that account alone, to escape being considered as wholly unproductive: that though it should be admitted, as alleged, that the consumption of the produce of the soil, by the classes of artificers or manufacturers, is exactly equal to the value added by their labour to the materials upon which it is exerted; yet it would not thence follow, that it added nothing to the revenue of the society, or to the aggregate value of the annual produce of its land and labour. If the consumption, for any given period, amounted to a given sum, and the increased value of the produce manufactured, in the same period, to a like sum, the total amount of the consumption and production during that period, would be equal to the two sums, and consequently double the value of the agricultural produce consumed. And though the increment of value, produced by the classes of artificers, should at no time exceed the value of the produce of the land consumed by them, yet there would be at every moment, in consequence of their labour, a greater value of goods in the market, than would exist independent of it.

2. "That the position, that artificers can augment the revenue of a society, only by parsimony, is true in no other sense, than in one

which is equally applicable to husbandmen or cultivators. It may be alike affirmed of all these classes, that the fund acquired by their labour, and destined for their support, is not, in an ordinary way, more than equal to it. And hence it will follow, that augmentations of the wealth or capital of the community (except in the instances of some extraordinary dexterity of skill) can only proceed, with respect to any of them, from the savings of the more thrifty and parsimonious.

3. "That the annual produce of the land and labour of a country can only be increased, in two ways, by some improvement in the productive powers of the useful labour, which actually exists within it, or by some increase in the quantity of such labour; that with regard to the first, the labour of artificers being capable of greater subdivision and simplicity of operation, than that of cultivators, it is susceptible, in a proportionably greater degree, of improvement in its productive powers, whether to be derived from an accession of skill, or from the application of ingenious machinery; in which particular, therefore, the labour employed in the culture of land can pretend to no advantage over that engaged in manufactures: that with regard to an augmentation of the quantity of useful labour, this, excluding adventitious circumstances, must depend essentially upon an increase of capital, which again must depend upon the savings made out of the revenues of those, who furnish or manage that, which is at any time employed, whether in agriculture, or in manufactures, or in any other way."

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It is now proper to enumerate the principal circumstances, from which it may be inferred—that manufacturing establishments not only occasion a positive augmentation of the produce and revenue of the society, but that they contribute essentially to rendering them greater than they could possibly be, without such establishments. These circumstances are,

1. The division of labour.
2. An extension of the use of machinery.
3. Additional employment to classes of the community, not ordinarily engaged in the business.
4. The promoting of emigration from foreign countries.
5. The furnishing greater scope for the diversity of talents and dispositions which discriminate men from each other.
6. The affording a more ample and various field for enterprise.
7. The creating, in some instances, a new, and securing, in all, a more certain and steady demand for the surplus produce of the soil.

Each of these circumstances has a considerable influence upon the total mass of industrious effort in a community: together, they add to it a degree of energy and effect, which are not easily conceived. Some comments upon each of them, in the order in which they have been stated, may serve to explain their importance.

#### I. As to the division of labour.

It has justly been observed, that there is scarcely any thing of greater moment in the economy of a nation, than the proper division of labour. The separation of occupations causes each to be carried to a much greater perfection than it could possibly acquire, if they were blended. This arises principally from three circumstances.

- 1st. The greater skill and dexterity naturally resulting from a con-

## 6 EXTRACT FROM ALEXANDER HAMILTON'S

stant and undivided application to a single object. It is evident, that these properties must increase, in proportion to the separation and simplification of objects and the steadiness of the attention devoted to each ; and must be less, in proportion to the complication of objects, and the number among which the attention is distracted.

2d. The economy of time, by avoiding the loss of it, incident to a frequent transition from one operation to another of a different nature. This depends on various circumstances ; the transition itself—the orderly disposition of the implements, machines, and materials employed in the operation to be relinquished—the preparatory steps to the commencement of a new one—the interruption of the impulse, which the mind of the workman acquires, from being engaged in a particular operation—the distractions, hesitations and reluctances, which attend the passage from one kind of business to another.

3d. An extension of the use of machinery. A man occupied on a single object, will have it more in his power, and will be more naturally led to exert his imagination in devising methods to facilitate and abridge labour, than if he were perplexed by a variety of independent and dissimilar operations. Besides this, the fabrication of machines, in numerous instances, becoming itself a distinct trade, the artist, who follows it, has all the advantages which have been enumerated, for improvement in this particular art : and in both ways the invention and application of machinery are extended.

And from these causes united, the mere separation of the occupation of the cultivator, from that of the artificer, has the effect of augmenting the productive powers of labour, and with them, the total mass of the produce or revenue of a country. In this view of the subject, therefore, the utility of artificers or manufacturers, towards promoting an increase of productive industry, is apparent.

II. As to an extension of the use of machinery, a point which, though partly anticipated, requires to be placed in one or two additional lights.

The employment of machinery forms an item of great importance in the general mass of national industry. 'Tis an artificial force brought in aid of the natural force of man ; and, to all the purposes of labour, is an increase of hands ; an accession of strength, unencumbered too by the expense of maintaining the labourer. May it not therefore be fairly inferred, that those occupations which give greatest scope to the use of this auxiliary, contribute most to the general stock of industrious effort, and, in consequence, to the general product of industry ?

It shall be taken for granted, and the truth of the position referred to observation, that manufacturing pursuits are susceptible in a greater degree of the application of machinery, than those of agriculture. If so, all the difference is lost to a community, which, instead of manufacturing for itself, procures the fabrics requisite to its supply from other countries. The substitution of foreign for domestic manufactures is a transfer to foreign nations of the advantages accruing from the employment of machinery in the modes in which it is capable of being employed, with most utility and to the greatest extent.

The cotton-mill invented in England, within the last twenty years, is a signal illustration of the general proposition, which has been just

advanced. In consequence of it, all the different processes for spinning cotton are performed by means of machines, which are put in motion by water, and attended chiefly by women and children; and by a smaller number of persons, in the whole, than are requisite in the ordinary mode of spinning. And it is an advantage of great moment, that the operations of the mill continue with convenience, during the night, as well as through the day. The prodigious effect of such a machine is easily conceived. To this invention is to be attributed essentially the immense progress, which has been so suddenly made in Great Britain, in the various fabrics of cotton.

III. As to the additional employment of classes of the community, not originally engaged in the particular business.

This is not among the least valuable of the means by which manufacturing institutions contribute to augment the general stock of industry and production. In places where those institutions prevail, besides the persons regularly engaged in them, they afford occasional and extra employment to industrious individuals and families, who are willing to devote the leisure resulting from the intermissions of their ordinary pursuits to collateral labours, as a resource for multiplying their acquisitions or their enjoyments. The husbandman himself experiences a new source of profit and support from the increased industry of his wife and daughters; invited and stimulated by the demands of the neighbouring manufactories.

Besides this advantage of occasional employment to classes having different occupations, there is another of a nature allied to it, and of a similar tendency. This is, the employment of persons who would otherwise be idle (and, in many cases, a burden on the community) either from the bias of temper, habit, infirmity of body, or some other cause, indisposing or disqualifying them for the toils of the country. It is worthy of particular remark, that, in general, women and children are rendered more useful, and the latter more early useful, by manufacturing establishments, than they would otherwise be. Of the number of persons employed in the cotton manufactories of Great Britain, it is computed that four-sevenths nearly are women and children; of whom the greatest proportion are children, and many of them of a tender age.

And thus it appears to be one of the attributes of manufactures, and one of no small consequence, to give occasion to the exertion of a greater quantity of industry, even by the same number of persons, where they happen to prevail, than would exist, if there were no such establishments.

IV. As to the promoting of emigration from foreign countries.

Men reluctantly quit one course of occupation and livelihood for another, unless invited to it by very apparent and proximate advantages. Many, who would go from one country to another, if they had a prospect of continuing, with more benefit, the callings to which they have been educated, will often be tempted to change their situation by the hope of doing better in some other way. Manufacturers, who (listening to the powerful invitation of a better price for their fabrics, or for their labour, of greater cheapness of provisions and raw materials, of an exemption from the chief part of the taxes, burdens and restraints, which they endure in the old world, of greater perso-

## **8 EXTRACT FROM ALEXANDER HAMILTON'S**

nal independence and consequence, under the operation of a more equal government, and of what is far more precious than mere religious toleration, a perfect equality of religious privileges) would probably flock from Europe to the United States to pursue their own trades or professions, if they were once made sensible of the advantages they would enjoy, and were inspired with an assurance of encouragement and employment, will, with difficulty, be induced to transplant themselves, with a view of becoming cultivators of land.

If it be true, then, that it is the interest of the United States to open every possible avenue to emigration from abroad, it affords a weighty argument for the encouragement of manufactures; which, for the reason just assigned, will have the strongest tendency to multiply the inducements to it.

Here is perceived an important resource, not only for extending the population, and with it the useful and productive labour of the country, but likewise for the prosecution of manufactures, without deducting from the number of hands which might otherwise be drawn to tillage; and even for the indemnification of agriculture for such as might happen to be diverted from it. Many, whom manufacturing views would induce to emigrate, would afterwards yield to the temptations, which the particular situation of this country holds out to agricultural pursuits. And while agriculture would in other respects derive many signal and unmixed advantages, from the growth of manufactures, it is a problem, whether it would gain or lose, as to the article of the number of persons employed in carrying it on.

**V. As to the furnishing greater scope for the diversity of talents and dispositions, which discriminate men from each other.**

This is a much more powerful mean of augmenting the fund of national industry than may at first sight appear. It is a just observation, that minds, of the strongest and most active powers for their proper objects, fall below mediocrity, and labour without effect, if confined to uncongenial pursuits. And it is thence to be inferred, that the result of human exertion may be immensely increased by diversifying its objects. When all the different kinds of industry obtain in a community, each individual can find his proper element, and call into activity the whole vigour of his nature. And the community is benefited by the services of its respective members, in the manner, in which each can serve it with most effect.

If there be any thing in a remark often to be met with, namely, that there is, in the genius of the people of this country, a peculiar aptitude for mechanic improvements, it would operate as a forcible reason for giving opportunities to the exercise of that species of talent, by the propagation of manufactures.

**VI. As to the affording a more ample and various field for enterprise.**

This also is of greater consequence in the general scale of national exertion, than might perhaps on a superficial view be supposed, and has effects not altogether dissimilar from those of the circumstance last noticed. To cherish and stimulate the activity of the human mind by multiplying the objects of enterprise, is not among the least considerable of the expedients, by which the wealth of a nation may be promoted. Even things, in themselves not positively advantageous, sometimes become so, by their tendency to provoke exertion. Every

new scene which is opened to the busy nature of man, to rouse and exert itself, is the addition of a new energy to the general stock of effort.

The spirit of enterprise, useful and prolific as it is, must necessarily be contracted or expanded in proportion to the simplicity or variety of the occupations and productions which are to be found in a society. It must be less in a nation of mere cultivators, than in a nation of cultivators and merchants; less in a nation of cultivators and merchants, than in a nation of cultivators, artificers, and merchants.

VII. As to the creating, in some instances, a new, and securing in all a more certain and steady demand for the surplus produce of the soil.

This is among the most important of the circumstances which have been indicated. It is a principal mean, by which the establishment of manufactures contributes to an augmentation of the produce or revenue of a country, and has an immediate and direct relation to the prosperity of agriculture.

It is evident, that the exertions of the husbandman will be steady or fluctuating, vigorous or feeble, in proportion to the steadiness or fluctuation, adequateness, or inadequateness of the markets on which he must depend, for the vent of the surplus, which may be produced by his labour; and that such surplus, in the ordinary course of things, will be greater or less in the same proportion.

For the purpose of this vent, a domestic market is greatly to be preferred to a foreign one; because it is, in the nature of things, far more to be relied upon.

It is a primary object of the policy of the nations, to be able to supply themselves with subsistence from their own soils; and manufacturing nations, as far as circumstances permit, endeavour to procure from the same source, the raw materials necessary for their own fabrics. This disposition, urged by the spirit of monopoly, is sometimes even carried to an injudicious extreme. It seems not always to be recollect, that nations which have neither mines nor manufactures, can only obtain the manufactured articles of which they stand in need, by an exchange of the products of their soils; and that, if those who can best furnish them with such articles, are unwilling to give a due course to this exchange, they must of necessity make every possible effort to manufacture for themselves; the effect of which is, that the manufacturing nations abridge the natural advantages of their situation, through an unwillingness to permit the agricultural countries to enjoy the advantages of theirs, and sacrifice the interest of a mutually beneficial intercourse to the vain project of selling every thing and buying nothing.

But it is also a consequence of the policy, which has been noted, that the foreign demand for the products of agricultural countries, is in a great degree rather casual and occasional, than certain or constant. To what extent injurious interruptions of the demand for some of the staple commodities of the United States, may have been experienced, from that cause, must be referred to the judgment of those who are engaged in carrying on the commerce of the country: but it may be safely affirmed, that such interruptions are at times very inconveniently felt, and that cases not unfrequently occur, in which

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markets are so confined and restricted, as to render the demand very unequal to the supply.

Independently likewise of the artificial impediments, which are created by the policy in question, there are natural causes tending to render the external demand for the surplus of agricultural nations a precarious reliance. The differences of seasons in the countries which are the consumers, make immense differences in the produce of their own soils, in different years, and consequently in the degrees of their necessity for foreign supply. Plentiful harvests with them, especially if similar ones occur at the same time in the countries which are the furnishers, occasion of course a glut in the markets of the latter.

Considering how fast and how much the progress of new settlements in the United States must increase the surplus produce of the soil, and weighing seriously the tendency of the system, which prevails among most of the commercial nations of Europe; whatever dependence may be placed on the force of natural circumstances to counteract the effects of an artificial policy; there appear strong reasons to regard the foreign demand for that surplus, as too uncertain a reliance, and to desire a substitute for it, in an extensive domestic market.

To secure such a market, there is no other expedient, than to promote manufacturing establishments. Manufacturers, who constitute the most numerous class, after the cultivators of land, are for that reason the principal consumers of the surplus of their labour.

This idea of an extensive domestic market for the surplus produce of the soil, is of the first consequence. It is, of all things, that which most effectually conduces to a flourishing state of agriculture. If the effect of manufactories should be to detach a portion of the hands, which would otherwise be engaged in tillage, it might possibly cause a smaller quantity of lands to be under cultivation: but by their tendency to procure a more certain demand for the surplus produce of the soil, they would, at the same time, cause the lands, which were in cultivation, to be better improved and more productive. And while, by their influence, the condition of each individual farmer would be meliorated, the total mass of agricultural production would probably be increased. For this must evidently depend as much, if not more, upon the degree of improvement, than upon the number of acres under culture.

It merits particular observation, that the multiplication of manufactures not only furnishes a market for those articles which have been accustomed to be produced in abundance, in a country; but it likewise creates a demand for such as were either unknown or produced in inconsiderable quantities. The bowels, as well as the surface of the earth, are ransacked for articles which were before neglected. Animals, plants, and minerals acquire a utility and value, which were before unexplored.

The foregoing considerations seem sufficient to establish, as general propositions, that it is the interest of nations to diversify the industrious pursuits of the individuals who compose them—that the establishment of manufactures is calculated not only to increase the general stock of useful and productive labour, but even to improve the

state of agriculture in particular, certainly to advance the interests of those who are engaged in it. There are other views, that will be hereafter taken of the subject, which, it is conceived, will serve to confirm these inferences.

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To all the arguments which are brought to evince the impracticability of success in manufacturing establishments in the United States, it might have been a sufficient answer to have referred to the experience of what has been already done: it is certain that several important branches have grown up and flourished with a rapidity which surprises; affording an encouraging assurance of success in future attempts; of these it may not be improper to enumerate the most considerable—

I. *Of skins.* Tanned and tawed leather, dressed skins, shoes, boots, and slippers, harness and saddlery of all kinds, portmanteaus and trunks, leather breeches, gloves, muffs and tippets, parchment and glue.

II. *Of iron.* Bar and sheet iron, steel, nail rods and nails, implements of husbandry, stoves, pots and other household utensils, the steel and iron work of carriages; and for ship building, anchors, scale beams, and weights, and various tools of artificers, arms of different kinds; though the manufacture of these last has of late diminished for want of demand.

III. *Of wood.* Ships, cabinet wares and turnery, wool and cotton cards, and other machinery for manufactures and husbandry, mathematical instruments, coopers wares of every kind.

IV. *Of flax and hemp.* Cables, sail-cloth, cordage, twine and pack-thread.

V. Bricks and coarse tiles, and potters' wares.

VI. Ardent spirits, and malt liquors.

VII. Writing and printing paper, sheathing and wrapping paper, pasteboards, fullers' or press papers, paper hangings.

VIII. Hats of fur and wool, and of mixtures of both. Women's stuff and silk shoes.

IX. Refined sugars.

X. Oils of animals and seeds, soap, spermaceti and tallow candles.

XI. Copper and brass wares, particularly utensils for distillers, sugar refiners and brewers, andirons and other articles for household use—philosophical apparatus.

XII. Tin wares for most purposes of ordinary use.

XIII. Carriages of all kinds.

XIV. Snuff, chewing and smoaking tobacco.

XV. Starch and hair powder.

XVI. Lampblack and other painters' colours.

XVII. Gunpowder.

Besides manufactories of these articles which are carried on as regular trades, and have attained to a considerable degree of maturity, there is a vast scene of household manufacturing, which contributes more largely to the supply of the community, than could be imagined, without having made it an object of particular enquiry. This observation is the pleasing result of the investigation, to which the subject of this report has led; and is applicable as well to the southern as to the middle and northern states; great quantities of

coarse cloths, coatings, serges and flannels, linsey woolseys, hosiery of wool, cotton and thread, coarse fustians, jeans and muslins, check-ed and striped cotton and linen goods, bedticks, coverlets and counterpanes, tow linens, coarse shirtings, sheetings, towelling and table linen, and various mixtures of wool and cotton, and of cotton and flax, are made in the household way; and in many instances to an extent not only sufficient for the supply of the families in which they are made, but for sale; and even in some cases for exportation. It is computed in a number of districts, that two-thirds, three-fourths, and even four-fifths of all the cloathing of the inhabitants are made by themselves. The importance of so great a progress, as appears to have been made in family manufactures, within a few years, both in a moral and political view, renders the fact highly interesting.

Neither does the above enumeration comprehend all the articles that are manufactured as regular trades. Many others occur, which are equally well established, but which not being of equal importance have been omitted. And there are many attempts still in their infancy, which, though attended with very favourable appearances, could not have been properly comprised in an enumeration of manufactorys already established. There are other articles also of great importance, which, though, strictly speaking, manufactures, are omitted, as being immediately connected with husbandry: such are flour, pot and pearl ash, pitch, tar, turpentine, and the like.

There remains to be noticed an objection to the encouragement of manufactures, of a nature different from those which question the probability of success—this it derived from its supposed tendency to give a monopoly of advantages to particular classes, at the expense of the rest of the community, who, it is affirmed, would be able to procure the requisite supplies of manufactured articles, on better terms from foreigners, than from our own citizens, and who, it is al- leged, are reduced to a necessity of paying an enhanced price for what ever they want, by every measure, which obstructs the free compe- tition of foreign commodities.

It is not an unreasonable supposition, that measures which serve to abridge the free competition of foreign articles, have a tendency to occasion an enhancement of prices, and it is not to be denied, that such is the effect of a number of cases: but the fact does not uniformly correspond with the theory. A reduction of prices has, in several instances, immediately succeeded the establishment of a domestic manufacture. Whether it be that foreign manufacturers endeavour to supplant, by underselling our own, or whatever else be the cause, the effect has been such as is stated, and the reverse of what might have been expected.

But though it were true, that the immediate and certain effect of regulations controlling the competition of foreign with domestic fabrics, was an increase of price, it is universally true, that the contrary is the ultimate effect with every successful manufacture. When a domestic manufacture has attained to perfection, and has engaged in the pro-secution of it a competent number of persons, it invariably becomes cheaper. Being free from the heavy charges which attend the im- portation of foreign commodities, it can be afforded, and accordingly seldom or never fails to be sold cheaper, in process of time, than was

the foreign article for which it is a substitute. The internal competition, which takes place, soon does away every thing like monopoly, and by degrees reduces the price of the article to the minimum of a reasonable profit on the capital employed. This accords with the reason of the thing and with experience.

Whence it follows, that it is the interest of the community, with a view to eventual and permanent economy, to encourage the growth of manufactures. In a national view, a temporary enhancement of price must always be well compensated by a permanent reduction of it.

It is a reflection, which may with propriety be indulged here, that this eventual diminution of the prices of manufactured articles, which is the result of internal manufacturing establishments, has a direct and very important tendency to benefit agriculture. It enables the farmer to procure, with a smaller quantity of his labour, the manufactured produce of which he stands in need, and consequently increases the value of his income and property.

The objections, which are commonly made to the expediency of encouraging, and to the probability of succeeding in manufacturing pursuits, in the United States, having now been discussed, the considerations, which have appeared in the course of the discussion, recommending that species of industry, to the patronage of the government, will be materially strengthened by a few general and some particular topics, which have been naturally reserved for subsequent notice.

I. There seems to be a moral certainty that the trade of a country, which is both manufacturing and agricultural, will be more lucrative and prosperous, than that of a country which is merely agricultural.

One reason for this is found in that general effort of nations (which has been already mentioned) to procure from their own soils, the articles of prime necessity requisite to their own consumption and use; and which serves to render their demand for a foreign supply of such articles in a great degree occasional and contingent. Hence, while the necessities of nations exclusively devoted to agriculture, for the fabrics of manufacturing states, are constant and regular, the wants of the latter for the products of the former, are liable to very considerable fluctuations and interruptions. The great inequalities, resulting from difference of seasons, have been elsewhere remarked: this uniformity of demand, on one side, and unsteadiness of it on the other, must necessarily have a tendency to cause the general course of the exchange of commodities between the parties, to turn to the disadvantage of the merely agricultural states. Peculiarity of situation, a climate and soil adapted to the production of peculiar commodities, may, sometimes, contradict the rule: but there is every reason to believe, that it will be found, in the main, a just one.

Another circumstance, which gives a superiority of commercial advantages to states that manufacture, as well as cultivate, consists in the more numerous attractions, which a more diversified market offers to foreign customers, and in the greater scope which it affords to mercantile enterprise. It is a position of indisputable truth in commerce, depending too on very obvious reasons, that the greatest resort will ever be to those marts, where commodities, while equally abundant, are most various. Each difference of kind holds out an additional inducement: and it is a position not less clear, that the field of

## 14 EXTRACT FROM ALEXANDER HAMILTON'S

enterprise must be enlarged to the merchants of a country, in proportion to the variety as well as the abundance of commodities which they find at home for exportation to foreign markets.

A third circumstance, perhaps not inferior to either of the other two, conferring the superiority which has been stated, has relation to the stagnations of demand for certain commodities which at some time or other interfere more or less with the sale of all. The nation which can bring to market but few articles, is likely to be more quickly and sensibly affected by such stagnations, than one, which is always possessed of a great variety of commodities: the former frequently finds too great a portion of its stock of materials, for sale or exchange, lying on hand—or is obliged to make injurious sacrifices to supply its wants of foreign articles, which are numerous and urgent, in proportion to the smallness of the number of its own. The latter commonly finds itself indemnified, by the high prices of some articles, for the low prices of others—and the prompt and advantageous sale of those articles which are in demand enables its merchants the better to wait for a favourable change, in respect to those which are not. There is ground to believe, that a difference of situation, in this particular, has immensely different effects upon the wealth and prosperity of nations.

From these circumstances collectively, two important inferences are to be drawn; one, that there is always a higher probability of a favourable balance of trade, in regard to countries, in which manufactures, founded on the basis of a thriving agriculture, flourish, than in regard to those, which are confined wholly or almost wholly to agriculture; the other (which is also a consequence of the first) that countries of the former description are likely to possess more pecuniary wealth, or money, than those of the latter.

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But the uniform appearance of an abundance of specie, as the concomitant of a flourishing state of manufactures, and of the reverse, where they do not prevail, afford a strong presumption of their favourable operation upon the wealth of a country.

Not only the wealth, but the independence and security of a country, appear to be materially connected with the prosperity of manufactures. Every nation, with a view to these great objects, ought to endeavour to possess within itself all the essentials of national supply. These comprise the means of subsistence, habitation, cloathing and defence.

The possession of these is necessary to the perfection of the body politic, to the safety as well as to the welfare of the society; the want of either, is the want of an important organ of political life and motion; and in the various crises which await a state, it must severely feel the effects of such deficiency. The extreme embarrassments of the United States during the late war, from an incapacity of supplying themselves, are still matter of keen recollection: a future war might be expected again to exemplify the mischiefs and dangers of a situation, to which that incapacity is still in too great a degree applicable, unless changed by timely and vigorous exertions. To effect this change, as fast as shall be prudent, merits all the attention and all the zeal of our public councils; 'tis the next great work to be accomplished.

The want of a navy to protect our external commerce, as long as it shall continue, must render it a peculiarly precarious reliance, for the supply of essential articles; and must serve to strengthen prodigiously the arguments in favour of manufactures.

To these general considerations are added some of a more particular nature.

Our distance from Europe, the great fountain of manufactured supply, subjects us, in the existing state of things, to inconvenience and loss in two ways.

The bulkiness of those commodities which are the chief productions of the soil, necessarily imposes very heavy charges on their transportation, to distant markets. These charges, in the cases, in which the nations, to whom our products are sent, maintain a competition in the supply of their own markets, principally fall upon us, and form material deductions from the primitive value of the articles furnished. The charges on manufactured supplies brought from Europe, are greatly enhanced by the same circumstance of distance. These charges, again, in the cases in which our own industry maintains no competition, in our own markets, also principally fall upon us; and are an additional cause of extraordinary deduction from the primitive value of our own products; these being the materials of exchange for the foreign fabrics which we consume.

The equality and moderation of individual property, and the growing settlements of new districts, occasion, in this country, an unusual demand for coarse manufactures; the charges of which being greater in proportion to their greater bulk, augment the disadvantage, which has just been described.

As in most countries domestic supplies maintain a very considerable competition with such foreign productions of the soil, as are imported for sale; if the extensive establishment of manufactories in the United States does not create a similar competition in respect to manufactured articles, it appears to be clearly deducible, from the considerations which have been mentioned, that they must sustain a double loss in their exchanges with foreign nations; strongly conducive to an unfavourable balance of trade, and very prejudicial to their interests.

These disadvantages press with no small weight, on the landed interest of the country. In seasons of peace, they cause a serious deduction from the intrinsic value of the products of the soil. In the time of a war, which should either involve ourselves, or another nation, possessing a considerable share of our carrying trade, the charges on the transportation of our commodities, bulky as most of them are, could hardly fail to prove a grievous burden to the farmer, while obliged to depend in so great a degree as he now does, upon foreign markets for the vent of the surplus of his labour.

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It is not uncommon to meet with an opinion, that though the promoting of manufactures, may be the interest of a part of the union, it is contrary to that of another part. The northern and southern regions are sometimes represented as having adverse interests in this respect. Those are called manufacturing, these agricultural states;

and a species of opposition imagined to subsist between the manufacturing and agricultural interest.

This idea of an opposition between those two interests is the common error of the early periods of every country; but experience gradually dissipates it. Indeed they are perceived so often to succour and to befriend each other, that they come at length to be considered as one: a supposition which has been frequently abused, and is not universally true. Particular encouragements of particular manufactures may be of a nature to sacrifice the interests of landholders to those of manufacturers: but it is nevertheless a maxim well established by experience, and generally acknowledged where there has been sufficient experience, that the "aggregate" prosperity of manufactures, and the "aggregate" prosperity of agriculture are intimately connected. In the course of the discussion which has had place, various weighty considerations have been adduced operating in support of that maxim. Perhaps the superior steadiness of the demand of a domestic market for the surplus produce of the soil, is alone a convincing argument of its truth.

Ideas of a contrariety of interests between the northern and southern regions of the union, are in the main as unfounded as they are mischievous. The diversity of circumstances, on which such contrariety is usually predicated, authorises a directly contrary conclusion. Mutual wants constitute one of the strongest links of political connexion: and the extent of these bears a natural proportion to the diversity in the means of mutual supply.

Suggestions of an opposite complexion are ever to be deplored, as unfriendly to the steady pursuit of one great common cause, and to the perfect harmony of all the parts.

In proportion as the mind is accustomed to trace the intimate connexion of interest, which subsists between all the parts of society, united under the same government—the infinite variety of channels which serve to circulate the prosperity of each to and through the rest—in that proportion it will be little apt to be disturbed by solicitudes and apprehensions, which originate in local discriminations. It is a truth as important as it is agreeable, and one to which it is not easy to imagine exceptions, that every thing tending to establish substantial and permanent order, in the affairs of a country, to increase the total mass of industry and opulence, is ultimately beneficial to every part of it. On the credit of this great truth, an acquiescence may safely be accorded, from every quarter, to all institutions, and arrangements, which promise a confirmation of public order, and an augmentation of national resource.

But there are more particular considerations which serve to fortify the idea, that the encouragement of manufactures is the interest of all parts of the union. If the northern and middle states should be the principal scenes of such establishments, they would immediately benefit the more southern, by creating a demand for productions, some of which they have in common with the other states, and others of which are either peculiar to them, or more abundant, or of better quality, than elsewhere. These productions, principally, are timber, flax, hemp, cotton, wool, raw silk, indigo, iron, lead, furs, hides, skins and coals; of these articles, cotton and indigo are peculiar to the

southern states; as are, hitherto, lead and coal; flax and hemp are or may be raised in greater abundance there, than in the more northern states; and the wool of Virginia is said to be of better quality than that of any other state: a circumstance rendered the more probable by the reflection, that Virginia embraces the same latitudes with the finest wool countries of Europe. The climate of the south is also better adapted to the production of silk.

The extensive cultivation of cotton can perhaps hardly be expected, but from the previous establishment of domestic manufactories of the article; and the surest encouragement and vent, for the others, would result from similar establishments in respect to them.

A full view having now been taken of the inducements to the promotion of manufactures in the United States, accompanied with an examination of the principal objections which are commonly urged in opposition, it is proper, in the next place, to consider the means by which it may be effected, as introductory to a specification of the objects which, in the present state of things, appear the most fit to be encouraged, and of the particular measures which it may be advisable to adopt, in respect to each.

In order to a better judgment of the means proper to be resorted to by the United States, it will be of use to advert to those which have been employed with success in other countries. The principal of these are—

I. Protecting duties—or duties on those foreign articles which are the rivals of the domestic ones intended to be encouraged.

Duties of this nature evidently amount to a virtual bounty on the domestic fabrics, since, by enhancing the charges on foreign articles, they enable the national manufacturers to undersell all their foreign competitors. The propriety of this species of encouragement need not to be dwelt upon; as it is not only a clear result from the numerous topics which have been suggested, but is sanctioned by the laws of the United States, in a variety of instances: it has the additional recommendation of being a resource of revenue. Indeed all the duties imposed on imported articles, though with an exclusive view to revenue, have the effect in contemplation, and, except where they fall on raw materials, wear a beneficent aspect towards the manufacturers of the country.

II. Prohibitions of rival articles, or duties equivalent to prohibitions.

This is another and an efficacious means of encouraging national manufactures: but in general it is only fit to be employed when a manufacture has made such a progress, and is in so many hand, as to insure a due competition, and an adequate supply, on reasonable terms. Of duties equivalent to prohibitions, there are examples in the laws of the United States, and there are other cases, to which the principle may be advantageously extended: but they are not numerous.

Considering a monopoly of the domestic market to its own manufacturers as the reigning policy of manufacturing nations, a similar policy, on the part of the United States, in every proper instance, is dictated, it might almost be said, by the principles of distributive

justice ; certainly by the duty of endeavouring to secure to their own citizens a reciprocity of advantages.

### III. Prohibitions of the exportation of the materials of manufactures.

The desire of securing a cheap and plentiful supply for the national workmen, and, where the article is either peculiar to the country, or of peculiar quality there, the jealousy of enabling foreign workmen to rival those of the nation, with its own materials, are the leading motives to this species of regulation. It ought not to be affirmed, that it is in no instance proper ; but it is certainly one which ought to be adopted with great circumspection, and only in very plain cases. It is seen at once, that its immediate operation is to abridge the demand and keep down the price of the produce of some other branch of industry, generally speaking, of agriculture, to the prejudice of those who carry it on ; and though, if it be really essential to the prosperity of any very important national manufacture, it may happen that those who are injured, in the first instance, may be eventually indemnified, by the superior steadiness of an extensive domestic market depending on that prosperity : yet in a matter, in which there is so much room for nice and difficult combinations, in which such opposite considerations combat each other, prudence seems to dictate, that the expedient in question, ought to be indulged with a sparing hand.

### IV. Pecuniary bounties.

This has been found one of the most efficacious means of encouraging manufactures, and it is, in some views, the best. Though it has not yet been practised upon by the government of the United States, (unless the allowance on the exportation of dried and pickled fish and salted meat could be considered as a bounty) and though it is less favoured by public opinion than some other modes—its advantages are these—

1. It is a species of encouragement more positive and direct than any other, and for that very reason, has a more immediate tendency to stimulate and uphold new enterprises, increasing the chances of profit, and diminishing the risks of loss, in the first attempts.

2. It avoids the inconvenience of a temporary augmentation of price, which is incident to some other modes, or it produces it to a less degree; either by making no addition to the charges on the rival foreign article, as in the case of protecting duties, or by making a smaller addition. The first happens when the fund for the bounty is derived from a different object (which may or may not increase the price of some other article, according to the nature of that object); the second, when the fund is derived from the same or a similar object of foreign manufacture. One per cent. duty on the foreign article, converted into a bounty on the domestic, will have an equal effect with a duty of two per cent. exclusive of such bounty ; and the price of the foreign commodity is liable to be raised, in the one case, in the proportion of one per cent. in the other, in that of two per cent. Indeed the bounty, when drawn from another source, is calculated to promote a reduction of price; because, without laying any new charge on the foreign article, it serves to introduce a competition with it, and to increase the total quantity of the article in the market.

3. Bounties have not, like high protecting duties, a tendency to produce scarcity. An increase of price is not always the immediate, though, where the progress of a domestic manufacture does not counteract a rise, it is commonly the ultimate effect of an additional duty. In the interval, between the laying of the duty and a proportionable increase of price, it may discourage importation, by interfering with the profits to be expected from the sale of the article.

4. Bounties are sometimes not only the best, but the only proper expedient, for uniting the encouragement of a new object of agriculture, with that of a new object of manufacture. It is the interest of the farmer to have the production of the raw material promoted, by counteracting the interference of the foreign material of the same kind—It is the interest of the manufacturer to have the material abundant or cheap. If, prior to the domestic production of the material, in sufficient quantity, to supply the manufacturer on good terms, a duty be laid upon the importation of it from abroad, with a view to promote the raising of it at home, the interest both of the farmer and manufacturer will be disserved. By either destroying the requisite supply, or raising the price of the article, beyond what can be afforded to be given for it, by the conductor of an infant manufacture, it is abandoned or fails; and there being no domestic manufactures to create a demand for the raw material, which is raised by the farmer, it is in vain, that the competition of the like foreign article, may have been destroyed.

It cannot escape notice, that a duty upon the importation of an article can no otherwise aid the domestic production of it, than by giving the latter greater advantages in the home market. It can have no influence upon the advantageous sale of the article produced, in foreign markets; no tendency, therefore, to promote its exportation.

The true way to conciliate these two interests is to lay a duty on foreign manufactures of the material, the growth of which is desired to be encouraged, and to apply the produce of that duty by way of bounty, either upon the production of the material itself, or upon its manufacture at home, or upon both. In this disposition of the thing, the manufacturer commences his enterprise, under every advantage, which is attainable as to quantity or price of the raw material: and the farmer, if the bounty be immediately given to him, is enabled by it to enter into a successful competition with the foreign material: if the bounty be to the manufacturer on so much of the domestic material as he consumes, the operation is nearly the same; he has a motive of interest to prefer the domestic commodity, if of equal quality, even at a higher price than the foreign, so long as the difference of price is any thing short of the bounty, which is allowed upon the article.

Except the simple and ordinary kinds of household manufacture, or those for which there are very commanding local advantages, pecuniary bounties, are in most cases indispensable to the introduction of a new branch. A stimulus and a support not less powerful and direct is, generally speaking, essential to the overcoming of the obstacles which arise from the competitions of superior skill and maturity elsewhere. Bounties are especially essential, in regard to articles, upon which those foreigners who have been accustomed to supply a country, are in the practice of granting them.

The continuance of bounties on manufactures long established, must almost always be of questionable policy: because a presumption would arise in every such case, that there were natural and inherent impediments to success. But in new undertakings, they are as justifiable, as they are oftentimes necessary.

There is a degree of prejudice against bounties, from an appearance of giving away the public money, without an immediate consideration, and from a supposition, that they serve to enrich particular classes, at the expense of the community.

But neither of these sources of dislike will bear a serious examination. There is no purpose to which public money can be more beneficially applied, than to the acquisition of a new and useful branch of industry; no consideration more valuable than a permanent addition to the general stock of productive labour.

As to the second source of objection, it equally lies against other modes of encouragement which are admitted to be eligible. As often as a duty upon a foreign article makes an addition to its price, it causes an extra expense to the community, for the benefit of the domestic manufacturer. A bounty does no more. But it is the interest of the society, in each case, to submit to a temporary expense, which is more than compensated, by an increase of industry and wealth—by an augmentation of resources and independence—and by the circumstance of eventual cheapness, which has been noticed in another place.

#### V. Premiums.

These are of a nature allied to bounties, though distinguishable from them in some important features.

Bounties are applicable to the whole quantity of an article produced or manufactured, or exported, and involve a correspondent expense; premiums serve to reward some particular excellence or superiority, some extraordinary exertion or skill, and are dispensed only in a small number of cases. But their effect is to stimulate general effort: contrived so as to be both honorary and lucrative, they address themselves to different passions; touching the chords as well of emulation as of interest. They are accordingly a very economical mean of exciting the enterprise of a whole community.

There are various societies in different countries, whose object is the dispensation of premiums for the encouragement of agriculture, arts, manufactures, and commerce; and though they are, for the most part, voluntary associations, with comparatively slender funds, their utility has been immense. Much has been done by this mean in G. Britain: Scotland in particular, owes materially to it a prodigious amelioration of condition. From a similar establishment in the United States, supplied and supported by the government of the union, vast benefits might reasonably be expected. Some further ideas on this head, shall accordingly be submitted in the conclusion of this report.

#### VI. The exemption of the materials of manufactures from duty.

The policy of that exemption, as a general rule, particularly in reference to new establishments, is obvious. It can hardly ever be advisable to add the obstructions of fiscal burdens to the difficulties which naturally embarrass a new manufacture; and where it is matured and in condition to become an object of revenue, it is, generally

speaking, better that the fabric, than the material, should be the subject of taxation. Ideas of proportion between the quantum of the tax and the value of the article can be more easily adjusted in the former than in the latter case. An argument for exemptions of this kind in the United States, is to be derived from the practice, as far as their necessities have permitted, of those nations whom we are to meet as competitors in our own and in foreign markets.

#### VII. Drawbacks of the duties which are imposed on the materials of manufactures.

It has already been observed, as a general rule, that duties on those materials ought, with certain exceptions, to be forborne. Of these exceptions, three cases occur, which may serve as examples—one, where the material is itself an object of general or extensive consumption, and a fit and productive source of revenue: another, where a manufacture of a simpler kind, the competition of which with a like domestic article is desired to be restrained, partakes of the nature of a raw material, from being capable by a further process, to be converted into a manufacture of a different kind, the introduction or growth of which is desired to be encouraged: a third, where the material itself is a production of the country, and in sufficient abundance to furnish a cheap and plentiful supply to the national manufacturers.

Under the first description comes the articles of molasses. It is not only a fair object of revenue, but being a sweet, it is just that the consumers of it should pay a duty as well as the consumers of sugar.

Cottons and linen in their white state fall under the second description—a duty upon such as are imported is proper to promote the domestic manufacture of similar articles in the same state—a drawback of that duty is proper to encourage the printing and staining at home of those which are brought from abroad. When the first of these manufactures has attained sufficient maturity in a country, to furnish a full supply for the second, the utility of the drawback ceases.

The article of hemp either now does or may be expected soon to exemplify the third case, in the United States.

Where duties on the materials of manufactures are not laid for the purpose of preventing a competition with some domestic production, the same reasons which recommend, as a general rule, the exemption of those materials from duties, would recommend, as a like general rule, the allowance of drawbacks in favour of the manufacturer: accordingly, such drawbacks are familiar in countries which systematically pursue the business of manufactures; which furnishes an argument of the observance of a similar policy in the United States; and the idea has been adopted by the laws of the union, in the instances of salt and molasses. It is believed that it will be found advantageous to extend it to some other articles.

#### VIII. The encouragement of new inventions and discoveries, at home, and of the introduction into the United States of such as may have been made in other countries; particularly those which relate to machinery.

It is customary with manufacturing nations to prohibit, under severe penalties, the exportation of implements and machines, which they have either invented or improved. There are already objects for a similar regulation in the United States; and others may be ex-

pected to occur from time to time. The adoption of it seems to be dictated by the principle of reciprocity. Greater liberality, in such respects, might better comport with the general spirit of the country; but a selfish and exclusive policy in other quarters will not always permit the free indulgence of a spirit which would place us upon an equal footing. As far as prohibitions tend to prevent foreign competitors from deriving the benefit of the improvements made at home, they tend to increase the advantages of those by whom they may have been introduced; and operate as an encouragement to exertion.

**IX. Judicious regulations for the inspection of manufactured commodities.**

This is not among the least important of the means, by which the prosperity of manufactures may be promoted. It is indeed in many cases one of the most essential. Contributing to prevent frauds upon consumers at home, and exporters to foreign countries—to improve the quality and preserve the character of the national manufactures, it cannot fail to aid the expeditious and advantageous sale of them, and to serve as a guard against successful competition from other quarters. The reputation of the flour and lumber of some states, and of the potash of others, has been established by an attention to this point. And the like good name might be procured for those articles, wheresoever produced, by a judicious and uniform system of inspection, throughout the ports of the United States. A like system might also be extended with advantage to other commodities.

**X. The facilitating of pecuniary remittances from place to place.**

**XI. The facilitating of the transportation of commodities.**

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*Extract of a letter from Benjamin Austin, Esq. to the Hon. Thomas Jefferson.*

"As the present state of our country demands some extraordinary efforts in congress to bring forward the *agricultural and manufacturing interests* of the United States, I am induced to mention a plea, often used by the friends of England, *that the work-shops of Europe are recommended by you, as the most proper to furnish articles of manufacture* to the citizens of the United States, by which they infer that it is your opinion, the MANUFACTURES of this country are not proper objects for congressional pursuits. They frequently enlarge on this idea as corresponding with your sentiments, and endeavour to weaken our exertions in this particular, by quoting you as the advocate of *foreign manufactures*, to the exclusion of *domestic*. Not that these persons have any friendly motive towards you, but they think it will answer their purposes, if such sentiments can be promulgated with an appearance of respect to your opinion. I am sensible that many of these persons mean to misrepresent your real intentions, being convinced that the latitude they take with your remarks on manufactures, is far beyond what you contemplated at the period they were written. The purity of your mind could not lead you to anticipate the perfidy of foreign nations, which has since taken place.—If you had, it is impossible that you would have discouraged the manufactures of a nation, whose fields have since been abundantly covered with merino sheep, flax and cotton, or depended on looms at

6000 miles distance, to furnish the citizens with clothing, when their internal resources were adequate to produce such necessaries by their domestic industry. You will pardon my remarks, and excuse my freedom in writing you on this subject. But it would be an essential service at this crisis, when the subject of manufactures will come so powerfully before congress, by petitions from various establishments, if you would condescend to express more minutely, your idea of the "*work-shops of Europe*," in the supply of such articles as can be manufactured among ourselves. An explanation from you on this subject would greatly contribute to the advancement of those manufactures, which have risen during the late war to a respectable state of maturity and improvement. *Domestic* manufactures is the object contemplated; instead of establishments under the sole control of capitalists, our children may be educated under the inspection of their parents while the habits of industry may be duly inculcated.

If the general idea should prevail that you prefer *foreign work-shops* to *domestic*, the high character you sustain among the friends of our country, may lead them to a discouragement of that enterprize which is viewed by many as an essential object of our national independence. I should not have taken the freedom of suggesting my ideas, but being convinced of your patriotism, and devotedness to the good of your country, have urged me to make the foregoing observations; your candour will excuse me if they are wrong."

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*Extract from Mr. Jefferson's answer.*

" You tell me I am quoted by those who wish to continue our dependence on England for manufactures. There was a time when I might have been so quoted with more candour. But within the thirty years which have since elapsed, how are circumstances changed? We were then in peace—our independent place among nations was acknowledged. A commerce which offered the raw materials in exchange for the same material, after receiving the last touch of industry, was worthy the attention of all nations. It was expected, that those especially to whom manufacturing industry was important, would cherish the friendship of such customers by every favour, and particularly cultivate their peace by every act of justice and friendship. Under this prospect the question seemed legitimate, whether with such an immensity of unimproved land, courting the hand of husbandry, the *industry of agriculture*, or that of *manufactures*, would add most to the national wealth? And the doubt on the utility of American manufactures was entertained on this consideration chiefly, that to the labour of the husbandman a vast addition is made by the spontaneous energies of the earth on which it is employed. For one grain of wheat committed to the earth, she renders 20, 30, and even 50 fold.—Whereas the labour of the manufacturer falls in most instances vastly below this profit. Pounds of flax in his hands, yield but penny weights of lace. This exchange too, laborious as it might seem, what a field did it promise for the occupation of the ocean—what a nursery for that class of citizens who were to exercise and maintain our equal rights on that element?—This was the state of things in 1785, when the Notes on Virginia were first published; when the ocean being open

to all nations, and their common rights on it acknowledged and exercised under regulations sanctioned by the assent and usages of all, it was thought that the doubt might claim some consideration. But who in 1785, could foresee the rapid depravity which was to render the close of that century a disgrace to the history of civilized society? Who could have imagined that the two most distinguished in the rank of nations, for science and civilization, would have suddenly descended from that honourable eminence, and setting at defiance all those laws established by the Author of Nature between nation and nation, as between man and man, would cover earth and sea with robberies and piracies, merely because strong enough to do it with temporal impunity, and that under this disbandment of nations from social order, we should have been despoiled of a thousand ships, and have thousands of our citizens reduced to Algerine slavery? And all this has taken place. The British interdicted to our vessels all harbours of the globe; without having first proceeded to some one of hers, there paid a *tribute* proportioned to the cargo, and obtained a licence to proceed to the port of destination. The French declared them to be lawful prize if they had touched at the port, or been visited by a ship of the enemy's nation. Thus were we completely excluded from the ocean. Compare this state of things with that of '85, and say whether an opinion founded in the circumstances of that day, can be fairly applied to those of the present. We have experienced what we did not then believe, that there exists both profligacy and power enough to exclude us from the field of interchange with other nations; *that to be independent for the comforts of life we must fabricate them ourselves.* We must now place the manufacturer by the side of the agriculturalist. The former question is suppressed, or rather assumes a new form. The grand enquiry now is, *shall we make our own comforts, or go without them at the will of a foreign nation?* He, therefore, who is now against domestic manufactures, must be for reducing us either to a dependence on that nation, or be clothed in skins, and to live like wild beasts in dens and caverns.—I am proud to say, I AM NOT ONE OF THESE. Experience has taught me that manufactures are now as necessary to our independence as to our comfort—and if those who quote me as of a different opinion, will keep pace with me in purchasing nothing foreign, where an equivalent of domestic fabric can be obtained, without regard to difference of price, it will not be our fault if we do not have a supply at home equal to our demand, and wrest that weapon of distress from the hand which has so long wantonly wielded it. If it shall be proposed to go beyond our own supply, the question of '85 will then recur, viz.: Will our surplus labour be then more beneficially employed in the culture of the earth, or in the fabrications of art? We have time yet for consideration, before that question will press upon us; and the maxim to be applied will depend on the circumstances which shall then exist. For in so complicated a science as political economy, no one axiom can be laid down as wise and expedient for all times and circumstances. Inattention to this is what has called for this explanation to answer the cavils of the uncandid, who use my former opinion only as a stalking-horse to keep us in eternal vassalage to a foreign and unfriendly nation."

EXTRACTS  
FROM  
AN ADDRESS  
OF THE  
AMERICAN SOCIETY  
OF  
NEW YORK

FOR PROMOTING DOMESTIC MANUFACTURES, TO THE PEOPLE OF  
THE UNITED STATES.

PUBLISHED BY ORDER OF THE PHILADELPHIA SOCIETY FOR THE PROMOTION  
OF AMERICAN MANUFACTURES.

**ALL** the arguments used by the partisans of foreign manufactures, are resolved into one point: Shall we manufacture for ourselves, or shall Britain manufacture for us? This is the question; and now, having stated it fairly, we shall meet it boldly, and argue it candidly.

On the part of the adversary, the following objections are relied upon as insurmountable:

1. That this ought to be a commercial and agricultural, and not a manufacturing country.
2. That manufactures are unfriendly to commerce and agriculture.
3. That they cannot be carried on to advantage, because labour is higher than in Europe.
4. That they demoralize and deprave those employed in them.
5. That they should be left to themselves, and not forced into premature existence by government patronage.
6. That such patronage would diminish the revenue and resources of government.

1st. That this ought to be a commercial and agricultural country. If this position were not the entering wedge for other sophistries, we should have nothing to do but to agree: but when they go to the length of saying, "Give up manufacturing that you may be commercial and agricultural," we say, no! but we will manufacture, that we may be agricultural and commercial. And we tell them, "read your history, and see how England's commerce has depended on, and grown out of, her manufactures."

If England's commerce has depended upon her manufactures, and without any agricultural resources she has risen to wealth, we may

well say, having a resource the more in the abundance of our soil, "Do you give up all competition, let us manufacture for you." Great Britain would surely think this an arrogant pretension, and she would think rightly. Why, then, presume that we should be her dupe?

Does any one seek to be convinced, by a single fact, that the settlement of the lands, and the prosperity of the country, depend, essentially, upon manufacturing establishments, let him go to the western part of this state, the rapid growth of which is without a parallel in the history of nations, and he will find that mills and manufactures formed the first rudiments of those almost countless villages and towns which spangle that fertile and beautiful country, emphatically styled, the *Eden* of the state.

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**2d. That our manufactures are noxious to our commerce and agriculture.**

This is little else than so many empty words. How can that which widens the field of commerce be said to injure it? Will these logicians assert that British manufactures have injured British commerce? No; but they speak with two tongues; one for themselves, and one for us. We have three resources; they have but two: abandon one, they say, that we may be equal. When did they set us the example of such complaisance? And as to any pretended injury to agriculture, by the absorption of labour, we find that out of 200,000 persons formerly employed in our factories, in two branches alone, more than 120,000 were women and children. Was agriculture benefited when, on the stopping of the cotton and woollen manufactures, these women returned to idleness, the children to the poor house, and the men, not to the farms, but to the cities from whence they came?

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**3d. That manufactures cannot be carried on here to advantage whilst labour is so much higher than in England.**

This may be plausible to those who are as ignorant of that country as its partisans are, or affect to be, of this. Our labour is, indeed, numerically higher; but taxes and impositions are so much lower, that we can afford to pay more, because our goods are charged with little else. It is true that in England the labourer receives less, because what he earns by his industry is paid away, before it reaches his hands, in tithes, pensions, taxes, poor-rates, and a thousand exactions to pamper the pride and luxury of those who live but to consume the fruits of the earth—who neither work, nor add to the stock of national wealth.

There is another motive, still nearer at hand: these manufactures give bread to many whom years, infirmities, or sex, disqualify from labours of a ruder cast, and make them rather a source of wealth to the community than an incumbrance. And so little does the depression of our manufactures depend upon scarcity of hands, that many are carried on by apprentices without wages. And since the peace, many persons have been obliged to return from them to the poor houses, and been again consigned to pauperism.

Mill-sites are to be had in this country, of which the fee-simple,

and all other charges, would not cost the annual expense of a steam engine; and though in England wages are higher than on the continent of Europe, yet that has not prevented her from underselling all her rivals, except such as have lately adopted the counteracting policy we would recommend.

Labour-saving machines, and mechanical improvements, which would be hailed by us as new planets in the firmament, are, in that country, the signals of mobs, assassinations, and revolt; and are, in fact, at last established by the sole protection of the strong arm of government.

We refer on this head to the "Statement of the Arts and Manufactures of the United States," by Mr. Tench Coxe, who asserts that the diminution of manual labour in 1808 was estimated in England, in regard to the cotton business, at 200 to 1. and he observes further, that Mr. John Duncan, of Glasgow, an able writer and artist, considers it to be much more. In the same work Mr. Coxe instances the saw-gin, invented by Mr. Ely Whitney, of Connecticut, as saving manual labour in the proportion of 1000 to 1. If it were consistent with our limits, or our present object, we could quote abundance of valuable matter from this authentic and useful work. We can only here recommend it to the perusal of all who take interest in their country's welfare.

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4th. That manufactures degrade and demoralize.

We are inclined to believe that in the British factories are found disgusting exhibitions of human depravity and wretchedness. But we cannot believe that the exercise of industry could ever be the cause of demoralizing any race of men; although unequal laws and bad examples may have that tendency. In this country there are extensive manufactories, and yet no such consequences are observed.

Whoever has travelled through the towns and cities of the British Isles, during the last twenty-five years of war, must know that it is not alone in manufacturing districts, or manufacturing countries, that beggary and wretchedness are to be found. Whoever would describe depravity and immorality, may visit barracks, camps, and men-of-war; and, moreover, those nations which are not manufacturing will be found most to abound in profligacy and disorder. In those countries that enjoy the benefit of manufactures, their wholesome effect upon the morals of the people is too often defeated by the immoderate use of spirituous liquors, which, and not manufactories, are the most prolific source of poverty and immorality. Experience has shown that the persons employed in manufactories are as sober as any of the working class. A reason for which may be, that the employers have better means of watching over their conduct, and controlling their disorders; or, where that cannot be effected, discharging those whose bad example might corrupt the rest.

And it appears, from the authentic treatise of Mr. Colquhoun, that before the present unparalleled state of distress in England, there were only *seven paupers* to every hundred inhabitants in the manufacturing districts, and in others, not manufacturing, there were *twenty-one*.

Was it manufactures that humbled Spain, whose power and pride

stood once as high as England's? What manufactures strew the streets of Naples with idle Lazaroni? What manufactures debase Portugal? Is it the manufacturing of tooth-picks at the university of Coimbra? or is it the stripping off the bark from the cork tree in the forest, to be carried to England, cut, and sent back to bottle their wine? Is it the encouragement of domestic manufactures that has degraded the children of Erin? Or is it that every demoniac effort has been used, to depress its industry, stifle its genius, and trample down its virtues?

And why is Canada so different from the United States, although untaxed? Because, even the timber of their woods is sent to be made into ships, and returned, ready framed, to be launched on the lakes for their defence.

But at length, though late, the continental nations have taken the alarm, and combinations are formed, by both sexes, against the importation of these manufactures! Shall we be less quick-sighted.

5th. That manufactures should be left to their natural growth.

To the friends of America, it will be argument enough that domestic manufactures are for the permanent interest of their country, and the only sure means of our independence. What would not wisdom and patriotism do to secure such objects?

We ask one-third of the protection which Britain has bestowed upon her manufactures. We ask not more protection than our commerce has received by discriminating duties and navigation laws; and what we do ask, is but until our tender grizzle shall be hardened, and our joints knit. But under what protection British manufactures grew, and still maintain themselves, we shall now show; and then, in our turn, ask these advisers, why ours should be left to themselves rather than their own.

Coeval with the first dawn of English prosperity, we find in the British code laws for the protection of British manufactures. One of their ancient kings, the third Edward, is magnified in their history for his wise foresight in enacting these statutes, to which their increasing greatness is ascribed. To those acts is referred the consequence to which that little island has since attained; the bursting of the feudal chains; the growth of art and science; and that power, of which the abuse has at length recoiled upon the head of pride and usurpation.

We do not ask for such laws as the British code exhibits. We would not sacrifice to a golden idol the rights or feelings of humanity. We would not chain to the ground the harmless artificer; nor under accumulated penalties restrain his natural rights. Yet such are British statutes. The oppressor may trample on him; famine stare him in the face; his children cry for bread, when he has none to give them; be his disgust or his enterprise what it may, he "must abide the pelting of the storm;" his native land is his dungeon, and his industry his crime. If a master of an American vessel offer to transport him to a country where his heart's hopes are centred, he, too, is condemned, as "*a seducer of artisans,*" to like ruinous inflictions, and punished for his charitable ministry. The exporter of

a tool or implement used in any art, or the master who receives it in his ship, is subject to similar pains and forfeitures.

We would here notice two branches of domestic manufactures, the shoe and hat manufactures, which have, by the means of the protection of government, prospered to that degree that they, at this day, render us independent of foreign supply. But facts are so abundant that the details would lead to interminable length.

We find a member of parliament, the celebrated Mr. Brougham, who brought about the repeal of the orders in council, by showing the effects of our non-importation law upon their manufactures, this energetic denouncer of the abusers of power, versed in the subject, and speaking for popularity, in arraigning as madness the excessive exportations to the continent of Europe, admits, nevertheless, "that it is well worth while to incur a loss on the first exportation, in order, by the glut, to stifle in the cradle those rising manufactures in the United States, which the war had forced into premature existence, contrary," as he is pleased to assert, "to the natural course of things." And a celebrated writer on the colonial policy of Great Britain whose words are considered next to official, in a chapter on the relative situation of Great Britain and America, as manufacturing rivals, speaks thus: "This is the era (he says) of a systematic contest which must, eventually, endanger the safety of the manufactures of the one or the other." Now, though this is not a war of arms, yet it is a war more subtle and more deadly, a war that can deprive us of every means of future resistance, and insure success to some future invasion. It is that warfare, which, two years after victory, has left us worse than a conquered nation; without a single piece of coined money in the purse of any individual. If we hesitate now, we deserve our adversary's scorn; if we will be deceived, why should he not deceive us; if we are content to be undone, why should he feel remorse; if we have no remedy, we are to be pitied and not blamed; if we have, and want courage to apply it, we are to be blamed, but not pitied. If we do not make a stand upon this ground, we need defend no other post; their interest, supported by the government, by their laws, by public patronage, and wealthy combinations, by export duties, and bounties on exportation, will prevail against our's, unsupported and neglected: and our interest will be more than *endangered*, in this *systematic contest*, if one gives all the blows, and the other passively receives them.

Nor is it a principle of English origin merely to encourage and protect domestic arts. All wise states have acted on it. In ancient Rome, though artificers were of the class of slaves, they were greatly favoured. They had their own temples, chose their own patrons to defend their causes, and were exempt from personal services to the state. They were incorporated into colleges or companies, had their own tutelary gods, and when their labours were ended, they hung up their tools with ceremonial rites, as votive offerings; and all this for their utility alone, having to fear no hostile competition.

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Will a nation, which spends millions to destroy the manufactures of other nations, and find markets for her own, hesitate to ex-

6      *Extracts from the Address of the American Society*

pend a few millions to crush the manufactures of one whom she honours with the name of rival?

Her restraints on our growing prosperity and national industry, and on the migration of arts and artisans to our shores, led to resistance; that resistance to independence; and that independence to our present greatness. The second war she waged against us gave us manufactures; against these she is now waging the third war: and if she can succeed in this third war, she calculates rightly upon our ruin and subjection.

It may be well to state a few instances of the operation of the policy we have denounced, that the well-wishers of this country may the better understand what passes daily before their eyes.

At an epoch when the Spanish government seemed to rouse itself a little from its usual torpor, and to occupy itself with the interests of the country, a manufactory of superfine woollen hats was established at the Escurial, under its special protection. Great sums were advanced by enlightened and public-spirited individuals, and the government took a large share in the enterprise. But the London hatters determined to put down so portentous an innovation. Immense quantities of the finest beavers were profusely scattered over all Spain, with orders to sell them uniformly at one half of the Spanish price. The consequences may be easily foreseen. The Spanish manufactures were ruined, the government was too timid to maintain the contest, and too economical to support a national branch of industry. The fabric of the Escurial was given up, and the ensuing year the English, by raising their prices, repaired the momentary and voluntary loss they had sustained—a proof at least of their skilful policy.

There is living testimony within the reach of this society, that, in certain British manufactories, the French marks were put upon their goods, without any affectation of concealment, and the purpose openly avowed, as well as the connexion that subsisted between the real manufacture in Britain, and the fictitious one in France.

And, at the commencement of our woollen manufactures, for the purpose of degrading our fabrics, goods of the worst quality, but highly finished to the eye, were sent to this city from England, marked "Humphrey's Ville," that they might, by passing for the productions of that manufactory, injure its well-merited reputation.

It is well known to many, that, during the late war, British goods were smuggled into this country, and exposed to sale as American, Spanish, and Portuguese; it is quite of course, too, for their agents who have come out here since the war, in speaking of the glutting of the European markets, to say, that the speculation was not so unwise as unfortunate; for, if the government and people had not taken the alarm, they should have destroyed their manufactures, and afterwards had their own price.

In the beginning of the year 1792, when the report of general Hamilton, then secretary of the treasury, made by order of the house of representatives, was published in England, it created such alarm, that meetings were called in the manufacturing towns, and Manchester alone, at a single meeting, subscribed 50,000 pounds sterling, towards a fund to be vested in English goods, and shipped to this country for

the purpose of glutting our market, and blasting the hopes of our manufactures in the bud.

And before we despatch this important head of "leaving manufactures to themselves," we must advert to that phenomenon of art, the steam-boat, that proudest specimen of *American manufacture*. Had it been left to itself, there would have been lost to the human race an inestimable benefit, and to this republic the proudest monument of its glory. It came forth with throes and pangs of travail like a giant's birth; and had not an enlightened legislature fostered its inventor with encouragement and hope, and renewed from time to time the period limited for its production, it would not now be seen stemming the current of our magnificent rivers, glittering like the enchanted galley on the tide of fate, topping the ocean's wave, or gliding like the pride of swans upon the lake.

6th. We come now to the last head of our argument, "the public revenue." And here we would remove that error which supposes that foreign importations pay the revenue to government. It is not so! they are barely the medium through which the government collects the revenue from the private purses of the private citizens. It is the citizen, and not the ship, that pays. It is the citizen, and not the foreign goods, that pay. It is the consumer, and not the importer. During the recent war, so far from supporting the revenue, these importations (too often carried on in partnership with treason) developed their characters, drained the country of its specie, and its bullion, and left the government in a situation too humiliating to be recollect ed without pain by any patriot.

It surely makes no difference to our citizens which way they pay the money that goes to support their government, and they can have no objection to pay it in the way most beneficial to their country, by raising it on the domestic manufactures. The necessity of a direct tax will be lessened, which will come in ease of the landed interest and of the merchant.

Mr. Isaac Briggs, in his statement to the chairman of the committee of commerce and manufactures, has proved, by exact calculations, founded on a *present* and *prospective* view of our population, wants, produce, and the foreign markets, that if our agriculturists depend, in future, upon any other market than that which domestic manufactures will afford, their produce will lie upon their hands, or they must accept of whatever price the foreign merchant may be pleased to offer, for such portion as he will condescend to accept. For produce will no longer serve as payment where it is no longer wanted, and payment in specie will clearly be impossible.

For the tables and calculations we refer to the 9th volume of Niles' Weekly Register, where this valuable document will be found.

As the public may not be aware of the great interest, even *now* in jeopardy, we will barely mention, upon good authority, that there were, at the peace, 600,000 spindles employed in the cotton factories alone, the value of each of which, with the appendages, averaged 80 dollars, embracing, in capital, above forty millions, *besides* the capital employed in working the raw material, which amounted to twenty millions more; and the woollen factories, though of much more recent

origin, a capital of about the same amount, all which appeared, from a report to the representatives of the people of the United States, by the committee of commerce and manufactures of the last session, founded upon authentic data, furnished by the agents of the manufacturing interest, who were examined before separate committees of senate and representatives. It has, moreover, been since ascertained, that preparations were made for the extension of both branches, which would have augmented the capital employed in them respectively to a much greater amount.

It is no time for jealousies between farmer, merchant, and manufacturer; one common bond of interest and patriotism unites them now. Let the government take advantage of this propitious crisis, stand firmly to its post and do its duty, as we trust it will; confidence will soon revive, capital be vested, machines improved, competition will bring our own goods to market at a reasonable price, and prevent those exactions which some affect to anticipate on the exclusion of foreign manufactures. On the other hand, if the foreign importations are ever again relied on as the means of revenue, what can ensue but a repetition of those vexatious embarrassments which our government experienced during the war, and which it cost the best blood of our country to surmount.

If it clearly now appears, that Europe will not take from us the produce of our soil upon terms consistent with our interest, the natural remedy is to contract as far as possible our want of her productions. And if there be no other way to independence than that of manufacturing for ourselves, at least for our own consumption, it is hoped that the prejudice against *home* is not so strong in the mind of any American, but that it may be overcome.

The encouragement, besides, of domestic manufactures will increase the capital of the country, as the manufactured article exceeds the value of the first material; sometimes one hundred fold, without speaking of the saving of all extra charges of shipping and re-shipping, increasing in proportion the value of the land, and easing the land-holder of his burden in supporting the expenses of the government. It has been exultingly asserted by a great statistical writer in England, that one man in a factory maintains four soldiers, and one steam engine subsidizes three hundred German mercenaries.

Let nothing, then, check our onward march, nor the vigour of our efforts. Let genius and patriotism, from whatever quarter of the earth, be naturalized amongst us, and nothing be exotic in this generous republic that blooms and bears good fruit.

And we now respectfully invite our fellow-citizens throughout the union, to unite with us in this great national concern, to establish societies with as much promptitude as possible, and to correspond with us, and with each other. Such diversified and rapid communication will bring important truths to light, dispel prejudice, refute sophistry, excite patriotism, cherish industry, and, above all, give to public opinion that expansive swell that will harmonize with the rising tide of our country's prosperity.

It is not to one class, nor to one interest, that we address ourselves, but to the whole and each respectively.

We call on our manufacturing brethren, and artists of every de-

scription, to communicate directly, or through the medium of some affiliated society, all such facts or information as may be subservient to the prosperity of domestic manufactures in general, or of any in particular.

And you, agriculturists, owners and possessors of the soil, the standing pillars of your nation's independence, we conjure you, for yourselves, and for your country, to second us by all your energies. Explore, with new activity, and determine, by new inquiries, the nature and productions of your estates, and the adjoining territories. Every view, statistical, economical, geological, or topographical, is connected with this great national concern. You may find that you have been unconsciously walking upon hidden treasures, richer than the mines of Golconda. The three kingdoms of nature may have been long tendering to your acceptance the willing tribute which you have heedlessly disregarded. Who can have so much interest as you in the opening of canals and roads, the increase of national industry and capital, with all its ramifications, which must reach you like irrigating streams of living waters, and enhance the value of your possessions? The great improvements that must follow in the train of national industry, are too far beyond ordinary calculations to be readily conceived. You will have, not one, but a choice of markets for your produce, of which wars, blockades, or the casualties of foreign nations, cannot deprive you. You will have speedy returns of whatever you may want, and your approximation to the mart of exchange will put it in your power to be the comptrollers of your own fortunes, and the arbiters of your own concerns. Our southern agricultural brethren, in particular, would do well to reflect that Great Britain is now, and has been for some time, creating new sources for a supply of cotton, by encouraging its culture in India, on the Coromandel and Malabar coasts, Africa, Brazil, and other places; and will shortly render herself independent of any supply from this country, and probably prohibit the importation of American cotton into her market. When this event, which is not far distant, shall take place, you will be destitute of a vent for your cotton, unless a market can be found in our own country, by the establishment of domestic manufactures.

To you, merchants, now sinking by these foreign importations to ruin and bankruptcy, we appeal; by your dearest interests, and those of your country, we conjure you to contribute all the power of your intelligence and enterprise, and to aid in counteracting those frauds upon yourselves and the revenue, of which you, your fellow-citizens, and the government, are common victims. A new and unforeseen crisis has put an end to those delusions which heretofore arrayed agriculture and commerce against domestic manufactures. It is now demonstrated, that whatever adds prosperity to either of these modes of industry, is beneficial to them all.

And of you, sons of science, who possess the rich treasures of cultivated intellect, and can teach their application to the useful arts of life, we claim the lights you can shed on this great subject. Too many of your former important communications have been lost to the pub-

lic, from the inauspicious times in which they appeared, and have perished like seed sown by the way side. We entreat you to come forth anew in the pride of intellectual vigour, to break the spell of ignorance, and emancipate the genius of your country.

You who redeemed your fellow-citizens from the barbarian's yoke and foreign captivity, who, mingling the battle's thunder with the cataract's roar, made Niagara's falls the eternal record of the well-fought field; and you, citizen soldiers, who re-echoed victory where Mississippi rolls her latest waves along—we invite you to participate in our civic triumphs. If your country's cause should call you forth hereafter, you will go girded with swords of native steel; and the arms you wield will be committed to you by the hands of your affectionate countrymen.

And you, fair daughters of Columbia, whose sway is most ascendant when the hearts of freemen do you homage, assert your dignity; disdain the fashions of foreign climes; let not the daughters of Belgium, Austria, or Russia, exceed, in patriotism, the free-born fair; let your dress be national; let your ornaments be of your country's fabric, and exercise your independent taste in suiting the array of your toilet to your own climate and your own seasons. You do not vote in the councils of your nation, but your empire is everywhere where man is civilized. Let the power of beauty add impulse to the springing fortunes of the land which you adorn; and let the charms of your persons be ever associated with your country's love.

With this view of the past and present we might conclude; but, may we not look forward with anticipated delight to the prospect that bursts upon our sense! not through the vista of a long perspective, but which our children may enjoy in all its splendour; when a territory, vast as the European continent, shall pour its riches forth; when the protecting shade of equal laws, and the misery of another hemisphere shall have increased our population to the measure of our wide domain; when the genius of the republic, towering like the eagle on the Appalachian heights, shall, looking from the proud summit to either ocean's wave, survey the wealth of every soil, the fruit of every clime. Where the bear roams, and the wild cat prowls, flocks and herds shall pasture, and the savage's dreary repair out-bloom the gardens of Hesperia. There cities, towns and villages, centres of intersecting orbits through which domestic commerce will revolve, shall rise and flourish. And whilst the plough shall trace the silent furrow, the mill shall turn, the anvil ring, and the merry shuttle dance. The exhaustless stores of mind and matter shall be this nation's treasury. Adventurous man, triumphing over the obstacles of nature, shall search the recesses of the stubborn mountain. The sounding tools, and the voice of human speech shall wake the echo in the vaulted space, where, from the beginning, silence and darkness reigned; and the rich ore shall quit its hidden bed, and sparkle in the upper day. Innumerable communications, by land and by water, shall bear, in all directions, the native produce of the soil and of its industry. Majestic rivers, enriched by their tributary streams, shall waft on their smooth tide the treasures of teeming abundance. And

those proud cars to which magic genius has yoked the discordant elements of fire and flood, shortening the distance of time and space, shall stem the mighty current. The immeasurable coasts, with all their bays and inlets, shall invite the mariner to commerce, or beckon him to shelter from the storm. Those inland seas, memorable by the victories of freemen, the classic scenes of future Muses, shall be studded with barks which national industry has set in motion; the white canvass swelling to the breeze, the ensign of freedom waving to the sky. One people, one tongue, one spirit, grappled by ten thousand relations of interest or affinity—what factious demagogue, what ambitious usurper, will then find a spot to insert the wedge to sever such a union? A thousand heartstrings must be rent before the smallest member can be separated.

Let the world, then, in arms, assail this great Republic. Like a proud promontory, whose base is in the deep, whose summit strikes the clouds; the storms of fate may smite upon its breast, the fretful ocean surge upon its base; it will remain unshaken, unimpaired—type of duration—emblem of eternity!

And who is he that is not proud of such a country—jealous of its prosperity? Who would be thought the subject of a king that could boast the title of citizen of this Republic—countryman of Franklin and Fulton—child of Washington!

Signed,

THOMAS MORRIS,  
SAMUEL L. MITCHELL,  
ARTHUR W. MAGILL,  
WILLIAM SAMPSON,  
JONATHAN LITTLE,  
THOMAS HERTTELL,  
JAMES ROBERTSON,  
THADDEUS B. WAKEMAN,  
ISAAC PIERSQN,  
J. R. B. RODGERS,  
EDWARD P. LIVINGSTON,

Committee  
of  
Correspondence.

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*Extract of a letter to William Sampson, Esquire, from Thomas Jefferson.*

“ I have read with great satisfaction, the eloquent pamphlet you were so kind as to send me, and sympathise with every line of it. I was once a doubter whether the labour of the cultivator, aided by the creative powers of the earth-itself, would not produce more than that of the manufacturer alone, and unassisted by the dead subject on which he acted: in other words, whether the more we could bring into action of the energies of our boundless territory, in addition to the labour of our citizens, the more would not be our gain. But the invention of the latter times, by labour-saving machines, does as much now for the manufacturer as the earth for the cultivator. Experience,

too, has proved that mine was but half the question; the other half is, whether dollars and cents are to be weighed in the scale against real independence. The question is then solved, at least so far as respects our own wants.

"I much fear the effect on our infant establishments, of the policy avowed by Mr. Brougham, and quoted in the pamphlet. Individual British merchants may lose by the late immense importations; but British commerce and manufactures, in the mass, will gain by beating down the competition of ours in our own markets."

THE END.

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